

# THE Portable Paper

## HP Getting Out Of Portable Business!

### LS/12 To Be Discontinued After Remaining Inventory Sold

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# Personalized Software Products and Services in Brief:

SYMBOLS: **110** = HP110 **P+** = Portable Plus **PV** = Portable Vectra

## WORD PROCESSING

**110** **P+** **PV** **LS** **150**

### The Editor II

Many features not in MemoMaker, including search/replace, editing 2 files at once, embedded printer codes, up to 255 columns per line and block centering and macros. Does word wrap, right justify. Easy to use. Uses less than 40 K. Versions for HP110, Plus, HP150 Vectra and IBM PC all on master disk.

**110** **P+** **PV** **LS** **150**

### VI

UNIX-style editor.

**P+** **PV** **LS** **150**

### Word Perfect 5.0 (and 4.2)

World's best-selling word processor, customized to P.Plus. Dozens of advanced features, including fonts, integrated text and graphics, style sheets, document compare, text in columns, footnotes, tables of contents, indexes, 115,000 word speller, thesaurus, mail-merging, built-in math functions. P.Plus version comes with PlusPerfect, our own IBM PC emulator that allows WordPerfect to run on the Plus. Optional ROM Backup saves 384K of RAM.

## WORD PROCESSING UTILITIES

**110** **P+** **PV** **LS** **150**

### The Formatter

Sophisticated text formatter for large reports, program documentation, etc. Multiline headers, footers, page numbers, table of contents, glossary capabilities, more. Works on MemoMaker, The Editor files. (Manual in draft form: no technical support available.)

**P+** **150**

### Format Plus

An integrated word processing command center for the Portable Plus. Let's you run your word processor, spelling checker, and other applications from a single easy-to-use program. Also lets you do headers, footers, lines per page, automatic page numbering and more.

**110** **P+** **150**

### HPrint

Prints text (MemoMaker, ASCII) files and prints them on an HP Printer. Comes with italic type font for ThinkJet. Also allows bold, underline, compressed, expanded, subscripts, superscripts, headers, footers, page numbering, double space, mail merging, and it lets you create your own graphic characters.

**110** **P+** **150**

### PrinterTalk and Format110: MemoMaker Enhancers

PrinterTalk lets you change type styles in middle of document, number of copies, and lines per page; do automatic page numbering, more. Format110 lets you format headers, footers, and page numbers; chain or merge documents; compensate for "widow" and "orphan" lines and much more.

**110** **P+** **PV** **LS** **150**

### RightWriter

Flags errors in grammar, style, usage and punctuation, inserting comments directly into your document. Also, produces overall critique. Works with most word processors. Also available: **RightWords** dictionary extension utility: it has 7 auxiliary dictionaries (business, computers, engineering, etc.), and also lets you add words of your own to RightWriter's built in dictionary.

**P+** **PV** **LS** **150**

### Webster's Spelling Checker

Rated Editor's choice by PC magazine, Webster's packs a 110,000 word dictionary into 207K of disk memory. Webster's shows you incorrect spellings in context and suggests corrections, lets you preview questionable words before you edit. Exceptionally easy to use. Customized for the Plus and HP150.

**110**

### The Word Plus

An excellent spelling checker with a choice of two dictionaries: 45,000 words and 35,000 words- plus the ability to input additional words and abbreviations of your own. Also does word counts. Customized to the HP Portables.

## UTILITIES TO BOOST YOUR PRODUCTIVITY

**P+**

### BacTools Disk

Contains a wide range of utilities to help you back up files from a 1 Megabyte or larger Edisk onto floppy disks. Lets you back up selected files, automate the entire backup process, and more.

**110** **P+** **PV** **LS** **150**

### DOS Tools: Portable Utilities Disk, Vol 1

Well over 50 excellent public domain programs that enhance DOS, all tested on the Portables. Documentation has been rewritten for clarity for ease of use, and includes examples, index, and table of contents.

**P+** **PV** **LS** **150**

### FilePlus: File Management

Lists the files in two directories simultaneously. You can tag multiple files and perform actions (such as copy, delete, move, etc.) on all the tagged files at once, without having to use P.A.M. or DOS.

**110** **P+** **PV** **LS**

### Link HP-IL

A software program that lets you transfer data from any HP-IL device to any other HP-IL device. Now you can access your main computer (HP Portable, HP150, or IBM PC) its unlimited storage capability, and all its peripherals from your HP41,71,75 or series 80 hand-held!

**110** **P+** **PV** **LS** **150**

### The Norton Utilities

Allow you to recover deleted Portable files and organize your electronic and external disks.

Peter Norton has authorized us to include an extra 3 1/2" disk (formerly only available on 5 1/4" disk). The disk includes The Norton Utilities, and instructions for running them on the Portables and the HP150. Version 4.0 and the advanced edition are now available.

**110** **P+** **PV** **LS** **150**

### 1987-90 Subscribers Disks

**1987** includes: (1) DISKPACK, a disk-packing utility, commercial equivalent sells for \$ 50 (2) Time Manager calendar utility. (3) HP Calculator program. (4) Game, Lotus templates **1988** includes (1) Time Manager mail-merge utility. (2) Great public domain software for Vectra. (3) password protect program (4) Xmodem program for P.Plus. (5) Lotus templates. (6) Games. (7) DOS Tools. (8) HP to Alternate mode toggler, (9) Lots more.

**1989** includes: (1) File manager utility that lets you tag files for mass copying and deleting. (2) File compressor (3) New RAM-based Time Manager with Week-at-a-glance screen. (4) Compuserve Automation program. (5) A menu program easier to use than PAM (6) Fast file finder (7) Directory lister (8) More.

**1990** includes: (1) Best file compression/archiver, (2) Wordstar work-alike editor, (3) LS/12 DOS extender, (3) Quick unerase util, (4) Space saving & DOS utils, (5) Great Russian game, (6) Text search util (7) Much more

**LS**

### PassPort

Designed for LS/12 & Zenith SuperSport gives you instant pop-up control of CPU speed, backlighting, cursor adjustment, battery, modem, hard disk, alarm, palette, clock, display.

**P+** **PV** **LS**

### PrintMaster

Allows you to use your HP Portable and ThinkJet to produce logos, invitations, banners, and other graphics. Customized for Port. Plus.

**110** **P+** **PV** **LS** **150**

### Private File

Protects letters, documents, data files by scrambling your file. Your password unscrambles.

**P+**

### Shelp

From within almost any program, Shelp gives you immediate access to a notepad and calculator and lets you define up to 26 keyboard macros- that, assign up to 31 character to a single keystroke. Written for Portable Plus.

**P+** **PV** **LS**

### Squish Plus

Automatic file compression program that as much as much as doubles available disk space. If you know how to save and retrieve files from your application, you know how to use Squish Plus. Available on ROM.

**110** **P+** **PV** **LS**

### Tiger Fox

A great video game of changing mazes and double pursuit designed for the Portables.

**110**

### Time Manager

The highly acclaimed Portable Plus ROM-based **Time Manager** program in a 3 1/2" disk version for the HP110 Portable. Does not run on Portable Plus. (Available to Portable Paper Subscribers only.)

**110** **P+** **150**

### Typing Whiz

Better than almost any typing tutor program on the market- designed specifically for The Portables and the HP150. Immediate numeric and graphic feedback or your progress.

## FILE TRANSFER MADE EASY

**PV** **LS**

### LapLink

A software program for high speed transfer of files between your Vectra CS or LS/12 and IBM PC or compatible. Versatile (works with parallel and serial ports), easy to use (simple manual or automatic file tagging).

**110** **P+** **PV** **LS** **150**

### Disk Conversion Service

We will convert your data to and from single sided, double sided, high density 3 1/2" and 5 1/4 inch formats at a reasonable cost.

**P+** **PV** **LS**

### HPDuette

A software program that lets you transfer files back and forth at high speed between your Portable Plus and an IBM PC or compatible desktop computer- without the need for HP-IL card. Comes with proper serial cable.

**110** **P+** **PV** **LS** **150**

### Manzana Disk Drive

These are high-quality drives for IBM Compatibles system to access 3 1/2" HP or IBM formatted disks.

**110** **P+** **PV** **LS** **150**

### ReadHP

This software program allows an IBM compatible computer with a 3 1/2" disk drive to read and write to HP formatted disks.

## SPREADSHEET ENHANCERS

**110** **P+** **PV** **LS** **150**

### 101 Macros for Lotus 1-2-3

Useful in themselves and as learning tools for novice and experts alike. Includes: recalculating ranges, double spacing spreadsheet prior to printout, hiding notes next to data cells, addressing form letters, and printing labels automatically. customized Lotus 1A and 2.01.

**110** **P+** **PV** **LS** **150**

### SideWinder

This program allows you to print your spreadsheets (or other text file) sideways on your ThinkJet. This means you can print your 60 column by 53 row spreadsheet Portable as one long printout without cutting or pasting.

**P+**

### Lotus 123 in RAM Drive

Utility allows you to run Lotus 1-2-3 or Symphony from RAM or disk rather than ROM.

## PROJECT MNGMENT

**110** **P+** **PV** **LS** **150**

### 2 Project Management Packages

**Milestone** is for small to medium projects - bit awkward on HP110). **Pertmaster**: larger projects - specify which machine.

## DATABASE, STATISTICS & ACCOUNTING

110 P+ PV LS 150

### Condor 3 and Condor Jr.

Easy-to-use database programs customized for the HP Portables. Enter data, sort, search, manage files, and print address labels with ease. Condor, Jr. for the HP110 allows limited report writing, and is highly memory-efficient.

**Condor 3** for Plus, Vectras, and HP150 is a fully "relational" system, allowing you to combine data from two or more files. It includes advanced report generating capabilities, data transfer with Lotus 1-2-3, and more.

P+ 150

### Dac-Easy Accounting V 1.0

Popular, powerful, yet inexpensive accounting package. General Ledger, Accounts Receivable, Accounts Payable, Purchase Orders, Billing, Inventory, Forecasting modules are all fully integrated. Easy-to-use menu-driven system. Generates numerous journals, aging reports, balance sheets, and more. Supplies limited.

P+ PV LS 150

### Statistix

Easy to learn and use comprehensive statistical package. Data can be entered from the keyboard or imported from spreadsheet or database files. Includes multiple regression, most standard parametric and non-parametric tests, p-values, plots, histograms, and much more.

## COMMUNICATIONS

110 P+ PV LS 150

### CompuServe Starter Kit

Starts you on Electronic Information Service, CompuServe (which includes the HP Forum). Includes \$25 worth of free time and CompuServe's monthly magazine, Online Today.

P+

### Relay Gold 2.0

Only P.Plus RAM-based communications package that handles both file transfer and terminal emulation. This popular IBM PC program, modified for the P.Plus, is easier, more powerful than Reflection. Lets you access electronic bulletin boards, allows for unattended file transfer, supports distributed processing, more. Beginners find it easy to learn, yet can handle the most sophisticated data transfer tasks.

110 P+

### Term110, TermPlus

Exceptionally easy-to-use alternatives to HP110 Terminal and P.Plus PC2622/Reflection. Both Term110 and TermPlus allow you to send and capture ASCII information. Both offer fast XMODEM transfer of programs, Lotus worksheets, and archive files. Both offer auto-logout, dialing directories, on-line help, ability to run other programs while phone still connected.

110 P+ PV LS 150

### WorldPort Portable Modems

The **WorldPort 2400**, **WorldPort 2400 / MNP** and the **WorldPort 1200** are battery powered, highly compact (4"x2"x1"), lightweight (6.5 oz), full featured external modems that transmit data at 300, 1200, and 2400 baud. Fully compatible with industry standard Hayes AT Command Set, and with both CCIIY and Bell standards.

## PROGRAMMING

110 P+ PV LS 150

### Turbo Pascal 5.5

IBM PC version of compiler (with OOP) adapted for Plus, HP150. Includes our TurboPlus Integrator that lets you easily go between your text editor and the Turbo Pascal compiler.

110 P+

### Turbo Optimizer For v3.0

Saves run time and storage space by making your Turbo Pascal 3.0 programs 10-30% faster and 15-50% smaller. For Version 3.0 only.

## GRAPHICS

P+ PV LS

### Flowcharting II+

This program creates profession-looking flowcharts and organizational charts using 26 flowchart symbols in 95 sizes. Wide variety of text fonts for creating labels. Easy to add and delete lines without disturbing the rest of the flowchart. "Shrink Screen" feature lets you view up to 14"x11" chart on 25 line screen. (Portable Plus only.)

P+ PV LS

### Logitech Mouse for Port. Plus

A three button mouse for the Portable Plus, bundled with our propriety Portable Mouse Software and special connecting cable. Using the mouse to move the screen cursor makes using your Plus easier and more fun. Logitech was rated Editor's choice by PC Magazine.

110 P+

### Sketch

A graphics program for the HP Portables. Lets you draw free-form using cursor keys. Also draw lines, boxes, circles by pressing a single key.. Five character sets can be displayed normally sideways, or even upside-down. Entire screen can be printed on ThinkJet at virtually any enlargement. Screens can be saved for future use. Screens can also be imported into Sketch from Lotus and other programs. Only uses 44K of memory.

## ACCESSORIES

110 P+ LS

### Targus & Fieldpro Cases

Roomy, rugged, high quality, highly padded cases to protect HP Portable, portable printer or disk drive when traveling.

P+

### External Numeric Keypad

Allows fast numeric entry from Lotus & other applications. Attaches to Plus via serial port.

110 P+

### HP9114 Empowerer

A hardware product that prevents the HP9114 disk drive from running out of juice in the middle of your work. Plug Empowerer into your HP9114 and into a normal wall outlet, and you can run your HP9114 forever.

110 P+

### Mobile Recharger

Lets you recharge your HP110, Portable Plus, ThinkJet, HP9114, Hp hand-held etc. from your cars cigarette lighter.

110 P+ PV LS

### 3 Ring Binders for Back Issues

Handsome printed 3-Ring binders for back issues of The Portable Paper. Specify Volume number (1-4).

## VECTRA CS AND LS/12 PRODUCTS

PV LS

### LapLink

Transfers files to PC. See "File Transfer Made Easy" at top of previous page.

PV LS

### FloppyDRIVER

Software speeds floppy disk access operations (loading, running programs, copying files, etc.)

110 P+ PV

### HP-IL Card for Portable Vectra

Fits in Portable Vectra adapter slot. Functions exactly like IBM PC HP-IL card, allowing transfer of data to HP-IL devices like the HP9114, HP110, and Portable Plus.

PV LS

### EtherNet Adapter

Pocket EtherNet Adapter directly connects to the parallel printer port of the LS/12, Portable Vectra CS, or any IBM compatible; and allows you to connect to an Ethernet or IEEE 802.3 LAN. The adapter supports Novell NetWare versions 2.0a and higher, is the size of audio cassette tape holder, weighs 5 oz. Vol 4:4:18.

LS

### Expansion Chassis

LS/12 AC Expansion Chassis (from Zenith) supports up to 3 XT compatible cards (for EGA or VGA graphics, addition I/O ports, EMS software, networking, etc.). Requires qualified technician to install 68-pin connector in LS/12.

110 P+ PV LS 150

### Kodak Diconix 150 Plus Printer

Battery powered inkjet printer; hardback dictionary sized. Draft mode: 180 chars/sec, 96 dots/inch. Quality mode: 36 chars/sec, 192 dots/inch. Panel or software controlled fonts include: pica, elite, draft, nlq, quality, condensed, super/subscript, underline, italic, emphasized, proportional, enlarged / condensed, double strike, double-wide. Vol 4:4:9.

LS

### LapTape Tape Backup Unit

Tallgrass Technologies tape backup unit for backing up LS/12 20 or 40 Meg hard disk. Connects via floppy disk connector. Vol 4:4:24

PV LS

### NoSquint

Turns hard-to-read underline cursor into easy-to-read block cursor. Vol 4:4:24.

LS

### Numeric Keypad

Zenith numeric keypad for adding machine-style numeric entry plugs into LS/12 right side

110 P+ PV LS 150

### StatPower Pocket Power Inverter

Plug your LS/12 or Portable Vectra CS recharger into this 1 lb, 4.5" x 3.5" x 1.3" unit. Plug the StatPower unit into your car's cigarette lighter and recharge your battery. Vol 4:3:14.

PV

### Traveldisk Portable Hard Drives

External, 10 to 250 MB, rugged, portable hard drives. Uses bus extender card designed for P.Vectra CS. Can use same drive with PC.

LS

### Weltech 5 1/4 Inch Disk Drive

5 1/4" disk drive that plugs right into the LS/12 external drive port. Vol 4:4:19.

PV LS

### Weltech PhD Serial Hard Drive

20 MB battery charged hard drive that connects to serial port. Vol 4:5.

PV LS

### WorldPort 2496 Fax & Modem

Battery powered, portable fax and 2400 baud modem connects to serial port. CCITT. Vol 4:5.

## P.PLUS UPGRADES

P+

### FastPlus

By installing faster processor and increasing the clock speed of your Portable Plus, you can run Lotus 1-2-3 and other applications 60% faster than before. Our trained technicians perform the upgrade and can have Plus back to you the next day. Call for appointment.

P+

### 256K to 512K P.Plus Upgrade

If you have model numbers 45711C or D, we'll add 256K to your unit. Call for appointment.

P+

### 2 Megabyte RAM Drawer

**1 M. RAM/8 socket ROM Drawer**  
Remove existing RAM or ROM drawer and substitute either 2 Megabytes of RAM or 1 Megabyte of RAM and 8 sockets of ROM. Call for pricing and availability.

### Software on ROM

Best-selling programs available on P.Plus ROM chips via our ROM Back-up service. Saves valuable electronic disk space, minimizes need for disk drive.

### Used HP Portable Equipment

HP110s, P.Plus's, HP9114s, ROMs, RAM drawers. HP quality makes used HP products a great buy. 30-day return policy plus one-year guarantee (parts and labor).

### Video: How to Use 110, P.Plus

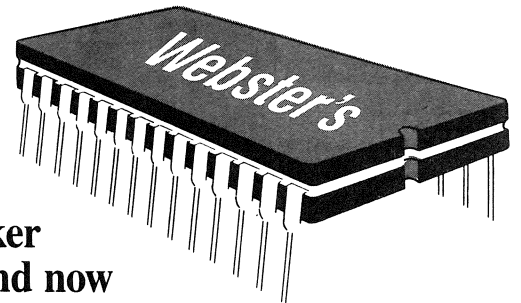
5-hour, 3 VHS videotapes. Contains fundamentals of using HP110, Portable Plus. Saves countless hours learning or training others. For novices and intermediate users.

## Products advertised or discussed in this issue

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PRICE LIST ..... Center Spread

# Portable Plus users: At last! A great spelling checker available on ROM!



**Webster's** (web'stərs) n. The spelling checker rated Editor's Choice by *PC Magazine* (Dec. 24, 1985), and now available from Personalized Software for the Portable Plus and HP150.

—Customized on 3½" disk by special arrangement with Simon & Schuster, Inc.

*PC Magazine* rated eight leading spelling checkers for ease of use, flexibility, speed, overall program size, thoroughness, and accuracy. WEBSTER'S NEW WORLD SPELLING CHECKER came out on top—for a number of good reasons:

First, there's sheer size. WEBSTER'S contains over 110,000 words in its dictionary—five times the number in Hayden's Speller, 2½ times as many as in The Word Plus—yet WEBSTER'S dictionary and main program take up only 207K of disk memory.

Second, WEBSTER'S isn't just easy to use—it's positively a *pleasure*. It reads your files at high speed, then displays every questionable word *in context*, highlighted. At the same time, in a "window" off to the side, it gives you a list of possible correct spellings. A simple menu gives you the following options:

- Accept the word as is
- Replace the word with one of the suggested spellings
- Enter the correct spelling manually

RECOMMENDED FOR:		
HP110 Portable	Portable Vectra	•
Portable Plus	HP150	•
IBM PC and compatibles		•
Available on ROM Backup for the Portable Plus		

- Add the word to an auxiliary dictionary of frequently used words
- Replace all other occurrences of the word
- Look up the spelling of any other word at any time

WEBSTER'S also lets you mark in your text any spelling corrections that change length of a word; this lets you quickly locate portions of text that may need reformatting.

WEBSTER'S will automatically locate double repetitions (like "and and"). It can correct transpositions ("item" becomes "item"), missing apostrophes ("dont" becomes "don't"), and *typos* of all kinds ("spelling" becomes "spelling," etc.).

If you're not sure of a word, you can even *spell it the way sounds*, and chances are WEBSTER'S will supply the correct spelling. ("Fenomenon" gets corrected to "phenomenon," for example.)

In addition, WEBSTER'S will let you preview a list of all questionable words *before* displaying them in context; this saves you time because it lets you eliminate words from the questionable list (or add them to your auxiliary dictionary) before you begin the editing pass.

John Dvorak, writing in the *San Francisco Examiner*, called WEBSTER'S "the

best spell-checker we've seen in a long spell." Henry Kisor of the *Chicago Sun Times* has called WEBSTER'S "the best proofreading software on the market." We agree with them both—and we think you will too. Order your copy at no risk today.

**Webster's Spelling Checker on 3½" disk customized for the Portable Plus and HP150 . . . . . \$79.95**  
**\$69.95 for Portable Paper subscribers.**

PRODUCT NO. WB11NS

**Webster's is available on ROM backup for an additional \$179. See ROM ad in this issue for important details.**



WEBSTER'S SPELLING CHECKER works with any file produced by the Editor, WordStar, and MemoMaker. It also works with ASCII files produced by MS Word and Word Perfect.

Our version of WEBSTER'S includes a customized 3.5" disk and simple instructions for running the program on the Portable Plus and HP150. A special utility allowing WEBSTER'S to run on the HP150 is included on the disk.

## 60-DAY MONEY BACK GUARANTEE

See order form for details.

## TO ORDER

Use enclosed postage-paid order form or send check or credit card information

(#, exp. date, signature) to:

**Personalized Software**

P.O. Box 869, Fairfield, IA 52556 515 472-6330

**PV** PV users: Please subtract \$10 from subscriber price (since we don't have to send you additional customized disks or extra documentation). Be sure to indicate "PORTABLE VECTRA" on your order.

**Attention HP110 Users:**  
**Order WordPlus for your**  
**Spell-checking needs!**

**HP Portable users:**  
Sorry, WEBSTER'S won't run on the 110;  
your best bet is THE WORD PLUS, another  
top-rated spelling checker available from  
Personalized Software.

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FOR HANDY REFERENCE: Items *directly* relevant to the three

HP Portables are denoted in this issue as follows:

110 110 Portable P+ Portable Plus PV Portable Vectra LS/12 Vectra LS/12

When items are *partly* or *indirectly* relevant they are denoted as:

110 110 Portable P+ Portable Plus PV Portable Vectra LS/12 Vectra LS/12

# PUBLISHER'S MESSAGE



**The Staff of Personalized Software**

It's hard to believe, but this issue completes our fourth year and twenty-fourth issue publishing *The Portable Paper*. The first issue, written in the Fall of 1985 was devoted to the HP110. Readers urged me to expand coverage to the Portable Plus. Reluctantly, I did. (I was ardent HP110 user and did not like the original Portable Plus screen. I soon changed my tune when I realized the power and flexibility of the Portable Plus.) In 1988 we added the Portable Vectra CS and in 1989 the LS/12. These are four very different machines, and we have attempted to cover each of them in proportion to our readership interest.

With the recent announcement that HP is at least temporarily getting out of the portable business (see the lead 110% article), our role increases in importance to HP Portable computer users. We are now the only knowledge and product source for these computers. Ironically, product offerings for these systems should increase next year as the software, peripheral, and accessory market for portable computers begins to boom. We'll keep you informed of what works with which HP computer. We'll also continue to provide a forum for users to share their discoveries, tips, and tricks with other users.

It's time to thank again all the people who made *The Portable Paper* successful this year. I trust you enjoy as much as I do the regular columns of Ed Keefe and Tom Page. Both Ed and Tom are strong computer users with unique, intelligent, thought-provoking perspectives and senses of humor. Ed tells us that he will not be able to submit his column regularly next year, but he'll keep in touch. Ed has been with me from issue one and I'll miss his regular input. However, I know Ed --- I'll be surprised if we don't hear from him often.

All other contributors deserve our appreciation. Some

day I'll go back and count how many different contributors (including letter writers) have been published in *The Portable Paper*. I bet it's over 200.

Well over half of every issue is written by you, our readers. That is why *The Portable Paper* is so valuable -- it's a record of the collective experience of users around the world. Special thanks goes to Sergio Biguzzi and Frank Keresztes-Fischer. Both of them are constantly nudging me into going the extra mile to support HP Portable users.

Finally, thanks to our staff. Most of them are in the picture taken in front of our building located on the Fairfield, Iowa town square. Hanging out the window on the top left with the Portable Vectra CS is David Seagull, whom many of you know from phone sales and technical support. David now is director of marketing and writes much of our marketing material. To David's right is the managing editor of *The Portable Paper*,

Richard Hall. He has eased my job, almost an order of magnitude, taking over most of the editing and desktop publishing of this newsletter. Cliff Harvey, left, back row and Mark Thomas in the front and left of Cliff (both are holding HP9114's) are responsible for cleaning, testing, inventorying, and shipping used equipment. Jim Larson with the ThinkJet is responsible for data entry and printing reports. Larry Baldozier with a Portable Paper notebook in each hand is Director of Operations. He makes sure the whole operation runs smoothly.

To Larry's left is Rick Finnell, in charge of quality control, shipping, and making products. Dee Stauffer and Brian Teitzman whom many of you have talked with on the phone work in sales and are to Rick's left. Below Brian is Deborah Quade, who handles subscriptions and all our mailings. Vicki Randolph is to Deb's right. Vicki handles all customer problems and complaints. Judy Horsch acts as a receptionist and secretary for the phone salespeople. I am next, standing next to Rita Goldstein, my partner and my wife. Without Rita there would be no Personalized Software and no Portable Paper. Behind and between Rita and I is Barbara Gianino who does whatever is needed, including filing and calling customers who have not paid their bills. Finally, to Rita's right is Judith Eversage our buyer and Ed Wilson in shipping and receiving. Glen Frank is above and between Judith and Ed and works as a bookkeeper, proofreader, and graphic artist.

I can't say enough about our people. We all really care about doing a good job and serving you. We are all customer advocates. We hope to continue to be of service to you in the years ahead.

# Letters

## Similarities Between The Mac Portable And The HP Portables

**110** **P+** Lest you think HP engineers were out to lunch when they designed the Plus, check out the review of the Macintosh Portable in the October Byte magazine. This new machine has many familiar old features.

The Mac Portable doesn't have a power switch. To turn it on, open the lid and press any key. You can turn the Mac off via a pull-down menu, or, if you don't do anything for a few (user adjustable) minutes, the Mac will turn itself off. A tap on the keyboard brings up the application program right where it left off. The Macintosh Portable can also turn itself on at a given time or when the modem detects an incoming call; you can, for example, take advantage of late-night long distance rates to send a report to the home office without staying up to the wee hours. If you ignore the low battery warnings, the Macintosh will go to sleep with enough power left to keep all your data intact for a few days.

The hardware that provides these still-unusual features is much like that in the Portable Plus. Power management for the system is under the control of a second, low-power, microprocessor — much like the Plus' PPU. The control processor can shut down subsystems if they are not being used. While the computer is waiting for input from the keyboard, the CPU clock is slowed down, reducing battery drain by about 20%. (On the Plus, the CPU clock stops, saving about 35%.) The control processor also manages getting into and out of sleep mode, having the main processor save and restore all its internal registers. Static RAM is used rather than the much more common dynamic memory to eliminate the need for constant refresh cycles. There are expansion slots available for RAM and ROM. Apple even selected a lead-acid gel-cell over a ni-card battery.

Yes, the new Macintosh does have differences from the Portable Plus. The screen is reportedly readable. The Mac has a built-in floppy and hard disk drives; it doesn't follow the Plus' RAM/ROM philosophy. The unit is much larger and heavier than a Plus. And at \$6,500, the Mac Portable is even more expensive than HP's old list price.

I think I'll keep my Plus for a while...

*Rich Brown St. Paul, Minnesota*

## More On "tjctrl"

**P+** First, I enjoy your commentary in *The Portable Paper* and the helpful tips. As suggested in the September/October

issue, I set up a MEMOMAKER.BAT file to activate PPTJ to control my ThinkJet printer. But, I didn't like being stuck in the B directory, nor the reset when exiting Memomaker. My solution is to install PPTJ from the File Manager. Just type PPTJ after entering the File Manager from Memomaker. Then PPTJ stays put and is available everywhere.

This solution is a general one. One can run as many applications as one has memory for by starting them from the File Manager. For example, start Memomaker, then if you need a little Lotus calculation, go to the File Manager, type 123 and you are in Lotus. If you need the results from Lotus, save them as a print file and use Memomaker's (convoluted) procedure to import the print file. I've strung Time Manager, Memomaker, and Lotus together in this way without ill effect. The advantage is you can keep all applications active, keeping your place while you move to another.

Like so many people, I believe that with the Plus, HP designed a machine which was way ahead of anyone else's thinking. Their mistakes were not realizing how good the Plus was and is, not properly explaining it, and not bringing out successors and upgrades to capture a big chunk of the entire portable market for the future. HP has meant superiority to me, but they have missed the boat with the portables (and workstations for the business/technical environment, too — but that's another lament).

*Harvey L. Kliman Chadds Ford, PA*

## Using The Editor to make PAM and Time Manager easier

**110** **P+** I have no suggestions about extending the size of the appointments file or the To Do file in Time Manager, as requested by Donald Herklroad in the September/October issue of *The Portable Paper*. However, I have found some ways to make life simpler using The Editor on my HP110:

1. I use The Editor to erase items from my PAM.ALM and TM.TDO files. It's lots faster than doing it in Time Manager. For anniversaries and such I use the replace function to change the year, and make the text entry timeless (i.e. using the year of birth rather than the age). The program then puts them in the proper order when it next boots.

2. I have not actually exceeded the file length for either one, but if I did, it would create a future and past file for the list in question and move blocks of items from present to past, or future to present with The Editor, using the capacity it has to move from one file to another with a couple of key strokes.

I expect that with the very helpful features of The Editor II, including the macros, it would be possible to devise an efficient means of handling specific problems, without going to the trouble of using DOS file manipulation.

*Curtis Farrar, Washington, DC*

## Short note of appreciation

**110** **P+** **PV** **LS/12** Three cheers for your staff and contributing personnel! They've helped and supported the operation of my Portable Plus in engineering applications, business needs, and Turbo Pascal games. I've talked and worked out many equipment, technical problems, and program details with Mr. Joseph Gerace. He's followed me around the country to do this and he's always delivered what he promised. He's an outstanding person in today's engineering world.

Many thanks to you and all your employees for the Portable publication.

*Donald Kirsch, Put-in-Bay, OH*

## Getting The 110 And A PC Compatible To Read The Same Disks

**110** **P+** Thanks to you and Brian for your help on getting my HP110 and PC compatible to read the same disks. I have since found the solution. I am not a trained programmer, so there are probably better explanations and ways of solving the problem, but here is what I found.

The HP110 and 9114A disk drive evidently read the individual specifications for the disk, whereas the compatible I am using reads the "media designation" and assumes the specifics. I have used the disks that I have modified only in a non-bootable form (no system files — data transferability is what I am interested in).

On disks formatted with FORMIBM (1988 Subscribers Disk) the bytes designating the number of directory entries is B000. On the IBM Formatted disk it is 7000. The HP assumes the data started at sector 18, the IBM compatible assumes sector 14. This results in the non-readability of the specific files. In conjunction with this the HP uses "near jump"; the compatible seemingly does not.

The two ways I have found of making the disks compatible are as follows:

1. Use FORMIBM on the HP110 and then use a program such as NORTON UTILITIES to change the word for the number of directories to 7000.
2. FORMAT the disk on the IBM compatible and use a program such as NORTON UTILITIES to change the near jump to the HP near jump — EB1C90.

I am very glad to have someone like you to communicate with, bounce ideas off of, and get some help in make my HP110 productive. Thank you for your help.  
*Gary Persons, The Philippines*

## Need Scientific Word Processor

**P+** A number of my colleagues at this institution own the Portable Plus and feel the need for a word processor programme that would allow us to do scientific word processing. On the IBM compatible we find the CHIWITER programme to be very suitable for this purpose (it's a fairly cheap and small programme).

*B.K. Mukherjee Kingston, Ontario*

*[If anybody has and ideas on this one let us know - Hal]*

## A few useful hints...

Here are a few useful hints for *The Portable Paper*:

- When in Memomaker and moving portions of files to large to memorize - use **copy** to move the block and then delete with **cut out block**. It is far to easy to loose a block while in memory, unless it has been previously saved and stored on disk.

- Knob and spindle for the Thinkjet - I tried to order this but my check was returned, so I studied the spindle assembly and decided to try to solve the problem myself. Needed are a good mechanic with a lath, about 2" of 1/4" round stock, a radio knob for 1/4" spindle and a #6 threaded stud or a 1" screw with its head cut off.

Have spindle and the round stock drilled and tapped for #6 thread. Drill the housing in line with the spindle 9/32". Assemble the ThinkJet and install the extension; mark and cut to the proper length depending on type of knob. Finally apply a small amount of cement to the thread and tighten hand tight to complete the modification. Be careful when moving the paper back near the end of the paper release.

- When installing any of the three alternate fonts on the ThinkJet - always have paper in the printer with the pressure bar off.

*Michael Felsenstein San Francisco, CA*

## Using Squish Plus With The Plus And Vectra Together

**P+** I am a satisfied customer of Squish Plus on ROM for the Plus.

**PV** Although I am tempted to buy a newer Portable; I still find the Plus the best solution from a weight, battery life, ruggedness, and I/O standpoint.

**LS/12** I use my Plus in conjunction with my Desktop Vectra. While I am using my Vectra through HPIL, I connect my Plus to my Vectra. The Plus is running HPLINK in this arrangement. The Plus looks like the D drive to the Vectra. If I want to travel with a file normally stored on the Vectra, I save it to **D:\Filename.Ext**.

With the Squish Disk installed I found that the only way to read and write to the Squish Disk on the Plus, from the Vectra, is to have the following lines in the Vectra CONFIG.SYS file:

```
DEVICE=E:\SQ\SQPLUS.SYS;
```

and the following line in the AUTOEXEC.-BAT file of the Vectra:

```
ATTACH M: to D:\HDISK.
```

The DEVICE command above lets the Vectra see the B: ROM as Drive E. The ATTACH command lets the Vectra see my Squish Disk (HDISK) as Drive M.

These instructions are not anywhere in the Squish documentation; I thought they might be useful.

*Frank Robertazzi, Rugberford, New Jersey*

## Squish Plus Extends Life Of Portable Plus

**P+** Several years ago I bought an HP Portable Plus for the following reasons:

- I am a computer idiot;
- the Executive Card Manager program;
- its durability and long battery life;

It's worked like a charm but even after a 1 megabyte upgrade I still ran out of room. (I wanted to carry a large customer database card file on the E disk.)

I live in my car and the Plus is perfect for me. I have had to split my files and balance a disk drive on my lap. Then I read the latest edition of *The Portable Paper* and found out about Squish Plus. You saved the day!!

With the help and patience of Steven in Personalized Software's technical support we got the ROM version of Squish installed. (He's great with people like me who still think MS DOS is a feminist.)

I estimate that I can go on for years with the expanded memory I achieved. Without *The Portable Paper* I probably would have retired my Plus. Now it's always at my side - thanks!

*Burt Kolker, Atlanta, Georgia*

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POSTMASTER: Please send address changes to Personalized Software, The Portable Paper, P.O. Box 869, Fairfield, IA 52556.

## Suggestions To Improve Time Manager

Here are some features needed to increase the efficiency of Time Manager:

1. Two weeks-, or even month-at-a-glance capability (including weekends) with the capacity to edit entries directly. Showing the date of each day would help tremendously.

*(Continued on page 38)*

## Likes Empowerer

**110** **P+** I have just tried out the HP9114 Empowerer you sent, and am so impressed I will buy another for my second disk drive.

*John Ross, Mosman, Australia*

110%

## Making More of Your HP Portable

by Hal Goldstein

**LS/12 Still On HP Price List ... But not for Long**

**110** The only current portable computer on the HP price list, the Vectra LS/12 Laptop PC, will continue to be sold until the HP inventory is depleted sometime in the first quarter of 1990. If you are interested in purchasing an LS/12 give us a call or check with your local dealer, as prices should be coming down.

**P+****PV****LS/12**

According to LS/12 product manager Peter Neidecker, HP did very well selling the LS/12. However, according to Neidecker, "neither HP or Zenith anticipated the overlap in distribution channels." (The LS/12 is essentially the same machine as the Zenith 286 SuperSport). "Therefore, HP has decided not to OEM additional Zenith products."

Neidecker further explained that HP is currently focusing its resources on the high performance market. I asked Peter what that means for HP's future in portable computing. Peter told me that HP will continue to monitor customers needs. That means sometime in the future HP may OEM another product, form a joint marketing agreement with another manufacturer, or develop a portable in house. However, there are no immediate plans and no Research and Development funds allotted.

**The 1990 Subscribers Disk**

**110** We're still finishing the 1990 Subscribers Disk. We'll have it ready to ship with the January, 1990, issue of *The Portable Paper* for all those whose subscriptions run through 1990. The only way the 1990 Subscribers Disk will be available is with a 1990 subscription.

**P+****PV****LS/12**

The disk highlights include a number of programs that run on all four HP Portables. First is LHARC, which will save you lots of precious disk space. This free program compresses files and groups files more efficiently than its shareware counterparts. Secondly we have VDE, a free Wordstar-like text editor that Ed Keefe has been raving about all year in his Looking Glass column. Thirdly we include MAXFIND, a PC Magazine-recommended \$15 shareware text search program, written by a local, Fairfield, IA author. He has created a special version for the HP110. You can quickly and efficiently use MAXFIND to locate any file by text that might be in it.

Other Subscriber Disk programs (that run on all HP portables) include the following:

- KILLDIR, a program that will erase your sub-directory all-at-once;
- BATMAST, a shareware program that stores all your batch files in one file saving disk space;
- XEQ, a similar program in which you can store all your COM files in one file;
- tjctrl, a memory resident program that lets Plus

users control their ThinkJet from within an application (see Savvy User, Pg. 28 for more);

- Memory expander (see Vectra Views, "Get 738 MG out of 640 MG on the LS/12", Pg. 18) 12
- HPINFOCM, a program to modify HP's INFOCOM game interpreter allowing it to run many IBM compatible Infocom games on the 110 and Plus (see "Infocom Games", this page).

We've found a Norton Utilities-like quick unerase program that retrieves deleted files. Also we've included several programs to make batch files more robust.

Vectra and other IBM compatible users beware -- I have included a game called NYET on the disk. This clever Russian game must have been sent here by the KGB before Glasnost to sap the productivity of U.S. computer users. You'll become addicted as you try piece together falling blocks of tetrominoes (4-order dominoes). When someone suggests you stop, you'll say "Nyet!" Portable Plus owners may not be safe. Comrade Ed Keefe told me he is working on a version for the Plus that may be available Spring, 1990, perhaps on our upcoming games disk.

There will be a number of other goodies on the disk. The collection of programs together is worth far more than the price of a subscription, so renew now!

**Attention HP3000 Users: MPE On HP Portables!**

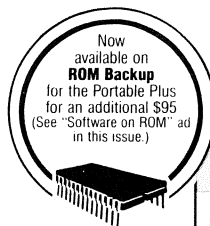
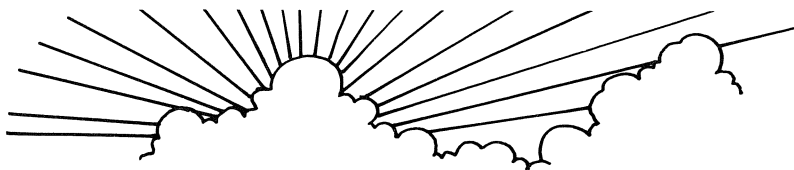
**110** Last month at the Interex show in San Francisco, at the Kydor Computer Systems booth, I saw the familiar HP-3000 operating system MPE prompt on a laptop. I was seeing a demonstration of a new product called KOS, which allows HP3000 programs to run on HP Vectras and other IBM compatibles with no source code changes. Kydor Computer Systems say that they are looking into developing an installation option for KOS that will allow it to work on the HP110, Portable Plus, and HP150. However, this option has not been officially announced.

**P+****PV****LS/12**

Bob Anderson, company president thought he would have more information including pricing and availability by next issue of *The Portable Paper*. If there is interest, we will carry the product.

**Infocom Games***By Gary Goodman***110****P+****PV****LS/12**

Many adults dismiss computer games as recreation for kids. But I suspect that many of them just don't want other adults to think that they too enjoy playing such games. Computers help us in education, in work, and in recreation. Probably one of the great attractions in computer games is that they respond to the player's



# The Editor II

## It's way beyond MemoMaker!

**You won't believe all the word-processing features this \$129\* program contains—and it takes up less than 40K of memory!**

**\*(only \$99.95 for Portable Paper subscribers)**

**NEW VERSION!**  
Now has line and block centering, powerful macros, and new printed tutorial!  
Easy to upgrade from Version I.

By Hal Goldstein

Let's face it: MemoMaker is an adequate word-processor, but it has its limits. No search and replace. No simple way to merge files. No destructive backspace key. (To delete the last character you have to use the left arrow key and the deletion key[s].) No compressed or expanded printing. No...—but why go on? If you use MemoMaker, you probably have your own list of things you wish it could do.

Well we have good news! Now there's an easy-to-use text editor that runs on the Portable and Portable Plus that will satisfy almost every item on your wish list. And the program comes with a built-in bonus: It also runs on the HP 150, IBM PC, and HP Vectra, which means that **now you can use the same program and files on your desktop that you use on your Portable.**

The program is called THE EDITOR II. It does everything MemoMaker does plus a heck of a lot more. And you don't have to go to the expense of buying WordStar (for the Portable) or MS Word (for the Plus) to go beyond MemoMaker's capabilities.

THE EDITOR II's most valuable features are listed on the chart to the right. It's quite a list, isn't it? To me, THE EDITOR II is a real blessing. I use it daily instead of MemoMaker, and I've silently given thanks to its author, Ed Gilbert, many, many times. Just a few minutes with THE EDITOR II (that's all it takes to be up and running) and I think you'll be a fan of his too.

In addition to the great features listed to the right, there are six more I especially want to emphasize:

1. THE EDITOR II's Lotus-like menus make it incredibly easy to use.
2. THE EDITOR II creates ASCII files, which means you can send your files to and from almost any other program or computer without special formats or codes.
3. THE EDITOR II will automatically back up your files to protect you against mistakes: When you save a file, THE EDITOR II saves not just the current version, but the previous one as well.

4. THE EDITOR II takes up less than 40K of memory.

5. THE EDITOR II loads and saves files and executes commands exceptionally fast.

6. THE EDITOR II comes with a well-written reference manual and a step-by-step tutorial.

Even in the desktop market, it is difficult to find a word processor with this many useful features at this low a price. For the Portables, THE EDITOR II simply can't be beat. See for yourself: Order your copy, risk-free, today.

**THE EDITOR II on disk . . . . . \$129.00**  
**Portable Paper subscriber price . . . \$99.95**

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**ROM BACKUP version . . . . . \$194.95**  
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PRODUCT NO. ED12PP

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PRODUCT NO. ED14NS

**Upgrade Kit on ROM and disk . . . . \$58.00**

PRODUCT NO. ED15NR

**PV** PV users: Be sure to indicate "PORTABLE VECTRA" on your order so we can send you proper disk format.

### 60-DAY MONEY BACK GUARANTEE

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Use enclosed postage-paid order form or send check or credit card information (± exp. date, signature) to:  
**Personalized Software**  
P.O. Box 569, Fairfield, IA 52556-515 472-6330

### Special combined offer— SAVE \$30:

THE EDITOR and THE FORMATTER together—  
Only \$119.95 total (Portable Paper subscribers only)

Note: The user manual itself is a challenge, and no technical support is available. We therefore recommend THE FORMATTER for strong computer users or those already familiar with text formatters.

If you need any of the features listed above, and if you're willing to spend the time it takes to learn the commands, THE FORMATTER is for you. Order your copy, risk-free today.

**THE FORMATTER . . . . . \$59.95**  
**Portable Paper Subscriber price . . . . . \$49.95**

**THE EDITOR II gives you all these great text-editing features and more:**

- **Search and replace.**  
Just tell THE EDITOR II what word or phrase to look for, and it will display each occurrence and/or replace the occurrences either selectively or globally.
- **Edit two files at once.**  
THE EDITOR II will display two separate portions of text at the same time, one above the other. You can view and edit two parts of the same file—or even two different files—simultaneously.
- **Backspace delete.**  
You can erase the last character with a single keystroke.
- **Block and line centering.**  
THE EDITOR II lets you center blocks and lines of text with a few simple keystrokes.
- **Powerful macros.**  
Store any sequence of keystrokes and play it back at the touch of a single key. Macros can be edited, deleted, stored in files—even autoloading on startup. THE EDITOR II comes with over two dozen macros to get you started.
- **No limit on file size.**  
If you're an HP110 Portable user, you're no longer confined by MemoMaker's 819-line limit. You can have as large a file as internal memory allows.
- **File merge.**  
You can merge two or more files together with ease.
- **Compressed and expanded.**  
You can imbed control characters in your text to tell your printer to print all or part of your text compressed, expanded, bold, underlined, or whatever else your printer can handle.
- **Unlimited line length.**  
Your files are no longer limited to 80 characters per line. This means, for example, you can print 132-character lines on your ThinkJet in compressed mode.
- **Lines per page.**  
You can specify the number of lines per page, using the control codes required by your printer.
- **Easy in, easy out.**  
You can exit from THE EDITOR II, run another program, then type a one-word command and be back in THE EDITOR II exactly where you left off. This includes exiting DOS—which means you can delete, copy, and rename files while running THE EDITOR II.
- **Right justification and automatic paragraph indent.**  
A simple command right-justifies your text and automatically indents your paragraphs however many spaces you wish.
- **Undelete.**  
A simple command will undelete the last line or block of text deleted.
- **Upper/lower case conversion.**  
Another simple command lets you change between upper case and lower case without having to retype anything.

In terms of useful features per dollar, THE EDITOR II is a truly exceptional buy. I urge you to try it. Order yours today.

*Hal Goldstein*

## The Formatter

THE FORMATTER gives you advanced formatting capabilities that even THE EDITOR II can't handle—like: multi-line headers and footers • automatic hyphenation (you can even add your own words to the built-in dictionary) • user-specified page length and line length • automatic page numbering • tables and charts • table of contents generation • and more.

THE FORMATTER works by imbedding special formatting codes into your EDITOR II, MemoMaker, or other ASCII text files. You can customize THE FORMATTER for almost any printer.

**PV** PV users: Be sure to indicate "PORTABLE VECTRA" on your order so we can send you the proper disk format.



actions in more involved ways than can be obtained in more traditional single-player games.

The most common type of computer game involves real-time action typified by the gobble 'em up, shoot 'em up games. The only action game for the HP110 and the Portable Plus which I have encountered is TigerFox. TigerFox is a simple chase game, but one which takes a lot of practice and eye-mind-hand coordination. It's a lot of fun (\$29.95 from Personalized Software).

Infocom pioneered the Adventure type games which they call "Interactive Fiction". Initially, these games were purely text based. You, the player, are typically an adventurer in a land of fantasy. You are presented a description of the scene around you. Then the computer waits for you to type in your response or desired action using simple sentences like, "go north" or "fight the troll with the sword." There is some element of chance in the games, but mostly it is a matter of skill and puzzle solving.

My first Infocom game was Zork I. In this game you play the part of an adventurer in a lost underground empire searching for treasures of great antiquity. There are many trials to overcome and some uncouth individuals which you will meet. My wife and I took a year to learn how to navigate through this land and find most of the treasures. We would play until we got frustrated, then put the game away or let someone else play. Sometimes they found a new trick which gave us a clue on how to proceed to the next stage. Then we would have a go at it again. The game was a lot of fun in the car during long trips. The passenger could read the scenario and both the passenger and driver could puzzle away at the next move. Since then we have played other Infocom games. They are all quite entertaining and can easily trap you for hours tapping away furiously at the keyboard.

These games are also quite popular with kids. When friends visit I'll ask their children, "Hey kids, how would you like to play an adventure game on the computer?" Then I take them up to the computer room and show them how to play. The rest of the house remains quiet for hours unless one of the kids comes down and says, "Tom won't let me play the game too."

Initially Hewlett Packard marketed special versions of Infocom's games specially adapted to the HP Portable computers. These game sold through HP dealers at list price. Concurrently, Infocom marketed IBM compatible versions of these same games at much lower prices, often less than half the price of the HP versions. I believe HP has now stopped marketing these games altogether. Infocom produced many more text-based games for IBM compatibles. Many of these games would run on the HP110 but for some differences in how the display escape sequences were implemented.

I found that I could easily modify HP's Infocom game interpreter to make it run many of the IBM compatible Infocom games on the 110 and Portable Plus. I wrote a small program, HPINFOCM, to generate a custom interpreter for the game you specify (included in 1990 Subscribers Disk). I believe it will work with most of Infocom's pure text games

HPINFOCM has been tested with the following:

BallyhooDeadline  
EnchanterMoonmist

Sea Stalker                      Zork I  
Plundered Hearts              Leather  
Goddesses Of Phobos  
Hitchhiker's Guide To The Galaxy  
It will not work with Bureaucracy (a PC DOS program).

Recently Infocom has dropped their purely text only games in favor of games that use graphics to augment their text. They are selling out their stock of the early games through TRITON Products Company. Some games may still be obtained from Infocom. Addresses of these companies are shown below.

TRITON Products Company  
P.O. Box 8123  
Menlo Park, CA 94128  
(800) 227-6900

Infocom/Mediagenic  
3885 Bohannon Dr.  
San Francisco, CA 94025

Personalized Software also has a few of these games originally market by Hewlett Packard in stock and at used prices. Call for pricing and availability.

## What is ASCII

**110** The American Standard Code for Information Interchange (ASCII for short) is the universal standard alphabet for personal computers. It is recognized by almost all personal computers. Most software programs (Lotus, Memo-  
**P+** maker, Condor, WordPerfect, etc.) can export or import  
**PV** files in ASCII format. ASCII files are the most common  
**US 1/2** files sent across phone lines with communications software and modems.

The ASCII "alphabet" has 128 different code groups, each one representing a different letter, number, punctuation mark, or control character. Each code group (byte) has eight positions (bits) and each position can be occupied by either a 0 or a 1. The first code group is 00000000, the second is 00000001, etc. (For example, the ASCII code for the letter "A" is the 65th code group, 01000001. The code for the character "[" is the 95th code group, 01011111). Below is a summary of the first 128 ASCII code group assignments.

Code Group	ASCII Assignment
0-31	control characters like Break, Line Feed, Carriage Return, Backspace, Escape, etc;
32-47	punctuation;
48-57	numerals;
58-63	more punctuation;
64-90	uppercase letters;
91-95	more punctuation;
96-122	lower case letters;
123-126	more punctuation;
127	the rub-out character.

## EXTENDED ASCII

Originally, the first bit in any ASCII code group was always 0. IBM decided that 128 ASCII code groups were being

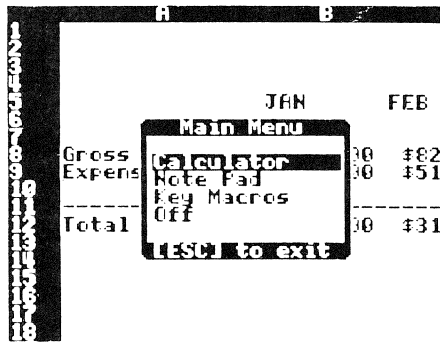


# Shelp

**Recommended by Hewlett-Packard, and used by more than 1,000 of their employees.**

It's a program called **Shelp** (*shell + help*), and it runs on the Portable Plus from within any non-graphics program. Here's all you do:

Press [Ctrl] [Shift] [Extend char] and up pops the Shelp menu, right in the middle of your application (Lotus in this example):



## Instant Access Pop-ups for the Portable Plus: Calculator • notepad • macros • and more

*"A great, easy-to-use productivity booster. If there's one program every Portable Plus owner should have, it's Shelp."*—Hal Goldstein, Publisher, The Portable Paper

The menu gives you 4 choices: Calculator, Notepad, Key Macros, and Off.

Choose **Calculator** and get a 4-function calculator that works just like a pocket calculator with memory. You can:

- save results in ten different storage registers and retrieve them again with two quick keystrokes

- "paste" results at the cursor location in whatever application you were using when you invoked Shelp.

Choose **Notepad** and a "scratch pad" pops up on your screen. Type whatever you want into it, exit to your application, and then recall the notepad whenever you want.

No more having to scribble notes on paper to remind you of phone numbers, things to do, or bright ideas!

Choose **Key Macros** and you can assign "strips" of up to 31 typewriter characters to any of the 26 letters in the alphabet. This saves you having to type the same phrase over and over again.

*Example:* If you type "United States" a lot, you could assign the entire phrase to the "U" key. Just move the

cursor to "U" in the Keyboard Macros menu and type "United States."

To recall "United States," simply press [Ctrl] [Extend char], then [U]. Presto—"United States" appears at the cursor location in your application!

Choose **Off** and your Portable Plus turns off without having to return to P.A.M., and without having to save your application file. When you turn your computer back on, you'll be in the same place in the same application, with no data lost.

All the capabilities of IBM-PC programs like Borland's SideKick and SuperKey? Certainly not, but Shelp's the only such program for the Portable Plus. It's a clean, easy-to-use, and highly useful helper you'll want at your fingertips always.

Shelp runs on the Portable Plus only. It works with Time-Manager, MemoMaker, Reflection 1, Lotus, and any other non-graphics program. (Shelp does not run with MS Word.)

Shelp was written by Randy Salo, the former HP engineer who authored MemoMaker on the original HP Portable.

PRODUCT NO. SH11NS

**Shelp .....\$55 (\$49.95 for Portable Paper subscribers)**

**60-day no-risk trial:** If, after 60 days you are dissatisfied with this product for any reason, you may return it for a full refund. **To order,** use the postage-paid form at the back of this issue, or send check or credit card number to: Personalized Software, P.O. Box 869, Fairfield, IA 52556 515/472-6330

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SideKick and SuperKey are registered trademarks of Borland International, Inc.

wasted (all those beginning with 1) and introduced Extended ASCII. Byte positions 128 through 255 are assigned to special symbols, graphics characters, and non-English letters.

One drawback with this improvement is that non-PC-compatibles and modems can't understand the extended ASCII characters. What's worse, these machines have a nasty habit of seeing the first character in the ASCII code group as 0 in all cases. Whenever an Extended ASCII character is encountered, it will misinterpret it as one of the original 128 ASCII characters.

Not everybody agrees on what the Extended ASCII characters should be. Fortunately, there is an international effort to standardize the extended character set. This same effort is even considering a 16-bit ASCII system to handle the large number of characters Oriental languages tend to have.

Any file written in regular ASCII format can be read by another program that reads ASCII files. However, formatting commands (underlining, italics, etc.) are not included in ASCII. If you convert your WordPerfect files to ASCII or transmit files over a modem, you'll lose your formatting codes. Don't use extended ASCII if you transfer files via modem as straight ASCII or between different programs.

## APPLE -- YET ANOTHER ASCII VARIATION

ASCII was derived from teletype coding and teletypes needed both carriage return and line feed codes to generate documents. Apple has eliminated the line feed code in the Macintosh. When the Mac sees a carriage return it automatically adds a line feed. If you move files from a PC to a MAC you shouldn't have any problems. Not so the other way!

## HPIL Switch Box

*By Lewis Thomas*

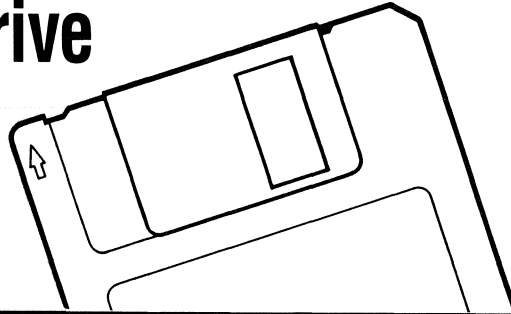
**110** **P+** The Hewlett Packard Interface Loop system affords excellent flexibility for interconnecting devices and controllers. If one desires to reconfigure the loop or bypass some of the devices on the loop, then the loop must be physically reconfigured in most cases.

I use my ThinkJet, 9114 Disk Drive, HP-71 and PC together most of the time. To remove the PC from the loop when I only want the HP-71 and ThinkJet is a bother. Or if I want to print on the ThinkJet from the PC, turning on the 9114 or reconfiguring the loop is an unnecessary event, so I designed and built the HPIL Switch Box.

The HPIL Switch Box (schematics shown in Figure 1) allows you to configure two separate HPIL loops. Any of the devices or controllers attached to the Switch Box (via

# Now you can use HP Portable or HP150 disks (single or double sided) in a 3½" IBM compatible disk drive

**Volume  
Pricing  
Available**



Even though your HP Portable/HP150 and the new IBM compatible computers both use 3½" disks, the disks are incompatible—HP disks can't be used in IBM machines. **ReadHP**, a "device driver" program developed by Personalized Software, solves the problem.

ReadHP installs in an IBM PC or compatible in minutes, and is a cinch to use: You simply place a 3½" HP disk (single or double sided) in the PC's disk drive, and press a few keys. Voila! The PC can read and write to the disk directly—without losing the ability to read and write to IBM disks.

Want to share your WordPerfect, Lotus, or other files between your HP Portable/HP150 and an IBM compatible with a 3½" disk drive? It's simple: Order ReadHP today.

**ReadHP** ..... \$79.95

**Portable Paper subscriber price** ..... \$69.95

PRODUCT NO. RD11NS

## 60-DAY MONEY BACK GUARANTEE

See order form for details.

## TO ORDER

Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:  
**Personalized Software**  
P.O. Box 869, Fairfield, IA 52556-515 472-6330

## RECOMMENDED FOR:

HP110 Portable	●
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat.	●

HPIL Connectors) can be placed on one of the two loops by throwing a two-position switch. The switches I used have a window which indicates switch position (and therefor the loop the device is on) by changing from black to yellow.

When all switches are in the same position, all devices/controllers are on the same loop. Any switch(s) set in the opposite position places that device/controller on the other loop. If a device is selected to be on Loop 1, it is shortened or bypassed on Loop 2. Therefore, if only one loop is being used, a device that is not being used may be bypassed by placing it on the other loop.

The switches are eight pole, two position switches as shown in Figure 1. They are very inexpensive (approximately \$1.25 each at Halted Specialties Company, 3060 Cooper Road, Santa Clara, CA 95051). The HPIL connectors are \$6.40 each from HP. The HPIL connectors can be replaced with HPIL cables if you have them available and

**HSC phone is 800-4-HALTED or 408-732-1573.]**

The switch and HPIL connector constitutes a "module", and configuration is easily expandable in the modular manner for as many devices/controllers as one desires. If one doesn't desire total flexibility in interconnecting all devices/controllers, then another possible configuration is to connect a controller or device to only one loop, in which case one switch is not required.

If one has many devices/controllers and desires more than two loops, the Figure 2 schematic may be of interest. This configuration requires two switches per device, and provides three loops for connecting devices/controllers. I constructed a three loop/six device version for Lee Woodruff to provide him flexibility in reconfiguring his system of three controllers.

## HPIL CONTROLLER/DEVICE SWITCH

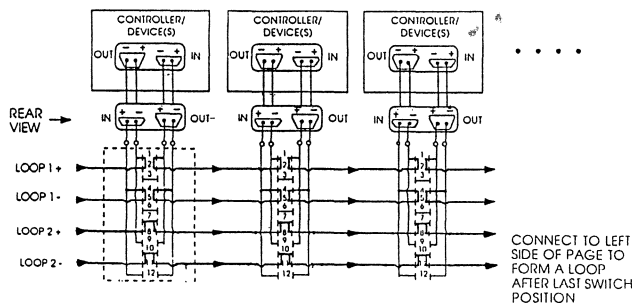


Figure 1

## HPIL CONTROLLER/DEVICE SWITCH (3 LOOPS)

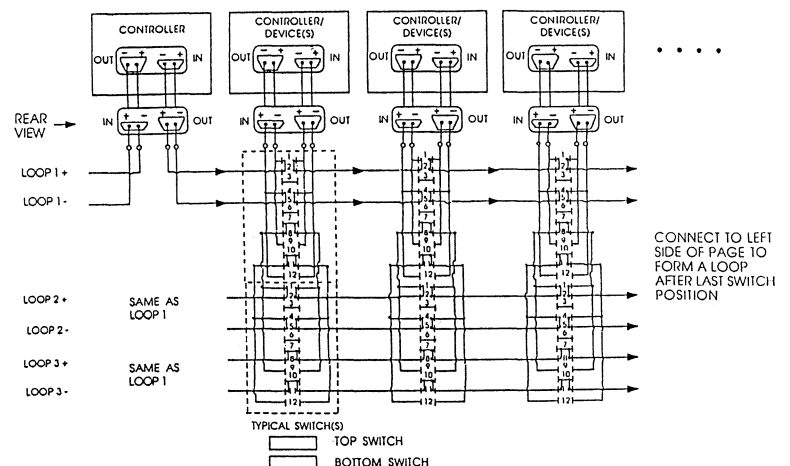


Figure 2

if cost is a major factor. The HPIL connectors add a touch of standardization with other HPIL devices. [HPIL connectors are HP Product No. 5061-4306 "Panel Receptacle." Switches are Halted Specialties part number HSC#8305.

The configuration is limited mainly by the time one is willing to take to assemble the unit. Dual sided printed circuit boards could be employed to ease some of the assembly burden if many units were to be fabricated.

# USED HP PORTABLES AND PERIPHERALS

**USED** HP110 Portables  
Portable Pluses  
HP150s  
HP9114 Disk Drives  
HP-IL ThinkJets  
HP-IL Converters  
Video Interfaces  
HP Software  
HP ROMs  
and more

(If you've bought a 1- or 2-megabyte RAM drawer, we'll even buy your old RAM drawer and extra memory!)

## We buy them.

No longer using your HP Portable or peripherals? Turn them into cash through The Portable Equipment Exchange. Prices fluctuate, so call us for current figures.

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Buying used HP equipment makes sense. You know HP quality! Even used HP machines can serve you well for years. Call for current prices.

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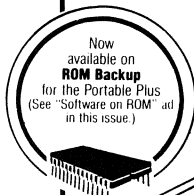
**(515) 472-6330**

The Portable Equipment Exchange  
—a division of Personalized Software  
P.O. Box 869 Fairfield, IA 52556

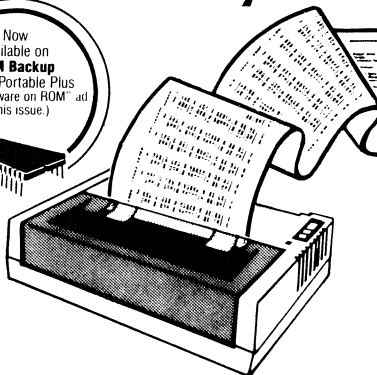
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For good buys on used—and new—HP equipment, see our 4-page brochure enclosed with this issue.

# No more cutting and pasting— Now you can print it sideways!



Now available on  
**ROM Backup**  
for the Portable Plus  
(See "Software on ROM" ad  
in this issue.)



# SIDEWINDER

SideWinder is published by Southern Software

## At last! Sideways printing for the HP Portable, Portable PLUS, and ThinkJet!

(And the HP150, Vectra, IBM PC, MS-DOS computers, and most HP graphics printers.)

It's called SideWinder, and it's perfect for Lotus 1-2-3 print files, MemoMaker files, or any other text (ASCII) file that's too wide for a normal page.

Just type in the file name, and SideWinder does the rest, printing up to 53\* rows *sideways* - for as long as your paper supply lasts. You'll never need to cut and paste again!

SideWinder's high-quality graphics characters are indistinguishable from ordinary characters, and SideWinder prints just as fast as your ThinkJet can.

In addition, a built-in mini text editor lets you get inside your print files and easily create **double-width** characters and underlines.

**SideWinder . . . . . \$69.95**  
**\$59.95 for Portable Paper subscribers**

PRODUCT NO. SW11NS

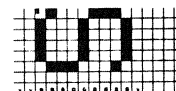
SideWinder 1.01 owners may upgrade to current version 2.01, which supports 8 chars/inch, by sending Personalized Software \$7.50 or by mailing a self-addressed \$.39 stamped envelope and the SideWinder master disk.

### RECOMMENDED FOR:

HP110 Portable	•
Portable Plus	•
Portable Vectra	•
HP150	•
IBM PC and compat	•
Available on ROM Backup for the Portable Plus	•

**OPTIONAL EXTRAS:** Southern Software of New Orleans, creators of SideWinder, have also created two companion utilities that work only on The HP Portables:

**SideChar** lets you create your own sideways characters.



SideChar lets you create your own sideways characters.

Simply fill in a grid on your Portable to modify SideWinder's built-in characters. . . create italics. . . Hebrew letters. . . integral signs. . . whatever sideways characters you wish.

**Sketch & Print** lets you make line drawings on your screen using the cursor and function keys.



It's a lot like those Etch/Sketch toys you played with as a child. (Actually, it's even better because you can draw not just horizontal and vertical lines, but also *diagonals* with a single key.) Sketch & Print also lets you print - and save - anything you draw on the screen.

**\$10 for both utilities when purchased with SideWinder**

★ For a complete graphics software program, see ad for "Sketch" in this issue.

Order form and guarantee are on inside back cover or send check or credit card number to Personalized Software, PO Box 869, Fairfield IA 52556 (515) 472-6330.

\*105 rows for QuietJet Printer

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# PORTABLE VECTRA VIEWS

*[Vectra Views contains information which specifically pertains to the Portable Vectra CS and Vectra LS/12 Laptop PC. In this column we note the latest developments in Portable Vectra and LS/12 products from Hewlett Packard, Personalized Software, and other third parties, and include specific tips for Vectra and LS/12 users. Please feel free to contribute on disk or letter to Personalized Software, PO Box 869, Fairfield, IA 52556, or call (515) 472-6330, FAX (515) 472-1879.]*

## Get 738 MG out of 640 MG on the LS/12

By David Hughes

ZEMM.SYS is an enhanced expanded memory driver for the HP Vectra LS/12 and Zenith Supersport 286 laptop computer that will be included on the 1990 Portable Paper Subscribers Disk. It differs from the EMS drivers that come bundled as a part of MS-DOS, because it takes full advantage of the LS/12 extra 320K of memory. Up to 96K of memory can be made available to MS-DOS, bring the total to 736K, leaving the balance assigned to LIM 4.0 EMS. ZEMM.SYS was written by Robert Ripberger, originally for the Zenith Supersport 286.

### YOU'LL LOVE IT

**LS/12** This little device driver is a gem of a program. Once you've installed it, you'll most likely never use your HP EMS device driver again. Taking up a diminutive 4K of disk space, this little program allows you as the user to assign up to 96K additional memory to MS-DOS. You can move the MS-DOS partition from 640K to 736K in 16K increments. Practically, that means you have more room for pop-up TSR programs such as SideKick or Ready. Also, applications such as WordPerfect run faster since they have more room to work in and applications like Lotus can support larger spreadsheets.

Not only can you change the memory partition, but the EMS board port I/O address and the EMS page frame can be adjusted from C000 to E000, should a conflict arise with another EMS board.

### HOW IT WORKS

Although I haven't had an opportunity to discuss the actual operation of the program with the author, I consulted the technical reference manual and believe this program utilizes the memory that is normally reserved for monochrome and EGA video for MS-DOS, and addresses expanded memory through the EMS page frame. The technical reference also indicates that 128K of EMS is used for monitor and video 'slushware', and scratch pad RAM. I don't have an EGA or Monochrome display adapter, so I can't verify this, but it seems like the only logical place

to find unused memory. The 736K MS-DOS available memory may only apply to CGA-only LS/12s or Supersports.

IN SHORT, ZEMM.SYS is a great idea! It not only extends MS-DOS a little further, but makes LIM 4.0 memory available to applications like WordPerfect and Lotus 1-2-3.

## Weltec Serial Hard Drive Better Than What We Said

**PV** In last issue (Vol. 4, No. 5, Pg. 15) we discussed the PhD, a 20 megabyte serial hard drive that you can run from the Portable Vectra CS or the LS/12 serial port. Since that article we have tested it with both machines and the drive works fine (but significantly slower than a built-in or normal external hard drive).

We said the driver took 256K of internal memory. In fact it only takes 3K.

### ORDERING INFORMATION

The PhD, Portable Hard Disk is available directly through WELTEC Digital of Irvine, California, at a retail price of \$1099.

Price to Portable Paper subscribers when ordered from Personalized Software is \$899.

## Another Portable Hard Disk For The Vectra CS

**PV** Every since the Portable Vectra CS was introduced, readers have called us asking about the availability of a hard disk for the dual floppy version and a second hard disk for the CS 20. A variety of choices from two vendors finally have become available in the past several months. Last issue we reported on the Weltec serial hard disk that connects to the CS serial port. We have another breakthrough to report this issue.

We first reported on the possibility of connecting a Tradewinds TRAVELDISK in Vol. 3, No. 1, Pg. 19. Almost two years later we are happy to report that Tradewinds has received and is testing its first shipment of bus extender cards designed for the Portable Vectra expansion chassis. With this card you'll be able to purchase a 10 MB to a 250 MB portable hard disk --- and share that disk among other PC compatible computers.

TRAVELDISK was developed four years ago as a 10MB unit intended for military use. The Navy did not want to transport computers, ship to shore. They needed a highly rugged and reliable portable memory device that had a large storage capacity, operated at a high data transfer speed, and was compact and lightweight. Over 50% of TRAVELDISK customers are government related organizations. The Department of Defense uses it to securely transport data for many projects, including the B2 Bomber. TRAVELDISK is used in the President's Office, national laboratories, and many other organizations.

The 20 MEG version of The TRAVELDISK is very small (2.6 x 4.1 x 5.9 inches, roughly the size of two thick paperback books together) and weighs about three pounds. It attaches to the back of the Vectra CS through a special, shielded, 50-dataline cable which connects to a Bus Extender Card (BEC) that must be installed in one of the Vectra's I/O Expansion Slots.

# **EIGHT ways to make your LS/12 Vectra or Portable Vectra CS more productive!**

## **Transfer your files to another PC without hassle!**

Highly rated **LapLink** software offers high-speed file transfer between your Vectra and another IBM PC compatible using **LapLink's** special cable. Versatile (works with parallel and serial ports) and easy to use (simple manual or automatic file tagging).

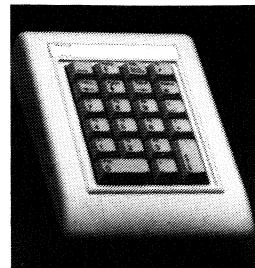
**LapLink for PV, LS/12 la11ns**  
Retail: \$139; Subscriber: \$119



## **Fast numeric entry for your LS/12!**

The **Zenith Numeric Keypad** plugs into the right side of your LS/12. Calculator-style numeric keypad simplifies spreadsheet and database numeric entry tasks.

**Numeric Keypad, LS/12 nu11nh**  
Retail: \$129; Subscriber: \$115



## **Access any Ethernet network with your Vectra!**

**Xircom Pocket Ethernet Adapter** attaches to your Vectra (or any PC compatible) parallel printer port. It lets you connect to any Ethernet LAN, supporting Novell NetWare versions 2.0a and higher. It's 5 oz: the size of an audiocassette case.

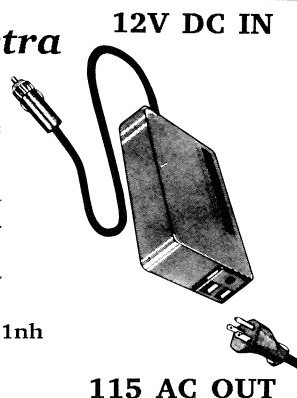
**Ethernet Adapter, LS/12,PV et11nh**  
Retail: \$695; Subscriber: \$629



## **Recharge your Vectra while driving!**

Plug your Vectra recharger into the 4.5" x 3.5" x 1.3", 1 lb, **PC100+ StatPower Pocket Power Inverter**. Recharge your Vectra battery by connecting the PC100+ to your car's cigarette lighter. The PC100+ provides instant 115V power from any 12V source.

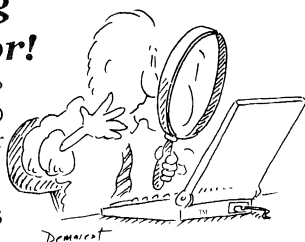
**StatPower PC100+ PV, LS/12 st11nh**  
Retail: \$179; Subscriber: \$169



## **No more squinting to find your cursor!**

Why search for a faint underline? Make Vectra cursor **BIG and BOLD** with **NoSquint** and see the cursor clearly without strain.

**No-Squint PV, LS/12 no11ns**  
Retail:\$39.95;Subscriber:\$37.95



## **Fax your files anywhere, anytime!**

Now you can have both a 9600 bps Group III facsimile and a full-featured 2400 bps modem in one completely portable, pocket-sized unit! Share the **WorldPort 2496** among different PC's, or use it just for your work and travels. Connects to Vectra serial port and can operate from its own battery or from AC power.

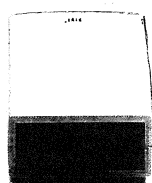
**WorldPort 2496 PV,LS/12 wf11nh**  
Retail: \$699; Subscriber: \$599



## **Back up your LS/12 hard disk files to tape!**

Tallgrass Technologies top-quality tape backup unit backs up LS/12 #20 or 40 Meg hard disk. Connects via LS/12 floppy disk connector in back. HP lab tested and approved.

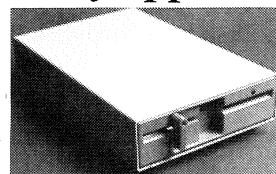
**LapTape Backup Unit, LS/12 la11nh**  
Retail: \$795; Subscriber: \$695



## **Access files from 5.25" floppies using your LS/12**

**Weltech 5.25" disk drive** plugs right into the LS/12 external drive port in back of LS/12. Can read from and write to 360K and 1.2M floppy disks.

**Weltech 5.25" driveLS/12 we11nh**  
Retail: \$349. Subscriber: \$299



**PV** Once the BEC is installed, it's simple matter to connect the TRAVELDISK to the Vectra by connecting the special dataline cable to the BEC port and the TRAVELDISK. The TRAVELDISK will automatically check for the presence of additional hard disks and configure itself for the next available drive. You can use that same TRAVELDISK with other computers if they have the appropriate BEC installed. The TRAVELDISK will reconfigure itself to suit each system.

TRAVELDISK is available with varying storage capacity, from 10MB to 250MB. Tradewinds Peripherals Inc. (TPI) offers flexible purchasing options that allow you to buy, rent, or lease a TRAVELDISK through its authorized dealers or itself. In addition, TPI allows you to trade up to a larger capacity version of TRAVELDISK or upgrade to newer versions of TRAVELDISK as they become available. Used TRAVELDISKS, with full warranty, are sold at a discounted price. Please see table below for the suggested retail pricing. If you order from Personalized Software, you may take 10% off the retail price.

TRAVELDISK

Model	Capacity	New \$	Used \$
TD-10	10MB	995	650
TD-20	20MB	1,195	775
TD-30	30MB	1,395	900
TD-40	40MB	1,695	1,100
TD-100	100MB	2,595	1,500
TD-250	250MB	4,095	CALL
Extra BEC	NA	80	NA
Extra Cable	NA	110	NA

TRAVELDISK comes with one Bus Extender Card, its special interconnecting cable, a carrying case, and instructions. A BEC for a standard PC compatible is only \$50. Assuming the first shipment of Portable Vectra CS BECs work properly, the disks should be ready for shipping by the time you receive this newsletter.

#### ORDERING INFORMATION

TRAVELDISK was developed Tradewinds Peripherals of Pacoima, California. See retail prices above.

Price to Portable Paper subscribers, when ordered through Personalized Software, 10% off new or used retail prices.

### Master Control and Power Management Software for the LS/12: PASSPORT

**LS/12** Safari Software, Inc. has just released Passport, a software program that lets LS/12 users easily control their hardware.

CPU speed, screen and cursor adjustment; battery, modem and hard disk monitoring; all can be accomplished via this menu-operated software that pops up over any application program on your LS/12.

Passport goes beyond simple battery monitoring to provide complete power management of the LS/12. With Passport you can:

- Quickly turn backlighting, internal modem, or hard disk on or off to conserve power;
- Adjust CPU speed to Fast, Slow, or Miser (super

low-power mode);

- Review battery charge and user-time remaining;
- Be alerted to impending battery discharge by an audible alarm and graphic indicator
- Set "System Idle Reminder" on/off, in 1 minute increments, up to 60 minutes;
- Maintain, condition, and restore NiCad batteries to prevent continuous "memory effect" without reduced hard disk life.

Passport also lets you select and set alarms; change cursor display; modify backlight, and palette adjustments; and display and set and onscreen clock.

Passport is a simple, menu-driven program that installs in less than a minute and provides dynamic prompts to walk you through its use. Passport was written specifically for the LS/12, Zenith SupersPort 286, and several other Zenith computers. It works independently of the LS/12's Machine, Mode, and Setup commands.

#### ORDERING INFORMATION

Passport was developed by Safari Software, Inc. of Columbia, South Carolina and retails for \$79.95.

Price to Portable Paper subscribers, when ordered through Personalized Software, is \$74.95.

### Troubles With CS Screen

**PV** There are problems with some Portable Vectra CS screens. Symptoms include horizontal lines across the Vectra screen. HP currently has no official policy for replacement. However, you can take your screen to an authorized HP service center, and they should be able to help you out.

### Always Select Backlight Powerdown

**LS/12** LS/12 users should probably always use the Backlight Powerdown option from the Setup program, even if they always run the LS/12 off AC rather than battery. This option turns off backlighting if the system is not in use after a user-selected number of minutes. Pressing a key turns on the backlighting.

The obvious reason to use this option is to conserve battery life. Another reason is to conserve the backlighting mechanism. After about 10,000 hours the light burns out. It will cost you over \$300 to have the part replaced.

To set the option run the SETUP program on your LS/12 disk (by typing **setup**). Then select **5 Battery Conservation** and then **LCD Backlight Powerdown**.

### Generate a Bullet

**PV** Want to generate a bullet: ▪ from your LS/12 or Portable Vectra CS? On your LS/12 hold down the **Fn**, **Alt**, and **Shift** keys. Then type 254 on your embedded numeric keypad (kiu). From your Vectra CS hold down the **Alt** and **Shift** keys and type 254 from your numeric keypad.

This method works from DOS and inside most programs. (I generated the bullet in this article using my LS/12 from within WordPerfect). 254 in the extended ASCII code for bullet. (See "What is ASCII page 8).

You can generate other ASCII characters in a similar manner. Your printer may or may not support all the extra characters.



## More LS/12 and Portable Vectra Products On The Horizon

I attended a trade show in New York recently on portable computing. There I saw a number of products that will be of interest to Portable Vectra and LS/12 users. Some of these products may also work with the HP110 and Portable Plus. We'll be getting them in for testing.

LS/12 and CS 20 users will be interested in a tape backup unit that attaches to your parallel or serial port. With this unit you'll have an easy way to backup and store your files from your hard disk. LS/12 users will be interested in a mouse and numeric keypad all in one unit that connects to the serial port. I also saw the smallest portable printer yet with parallel interface that produces letter quality output using thermal paper. LS/12 will be interested in an 2400 baud internal MPI modem. Finally, we found software that lets your modem use MPI protocol (for faster more reliable data transmission).

I will be at the COMDEX show in Las Vegas about the time you receive this issue and will be uncovering other products that will work with HP Portables. Tune into the 1990 issues for more information.



*Products that make HP Portables smarter*

P.O. Box 869, Fairfield, Iowa 52556 515 472-6330

By Hal Goldstein

### What we're working on

#### 110 PROMISES, PROMISES, PROMISES

**P+** Most companies elect not to tell their customers what they are working on for good reasons. They don't want to look bad when they can't deliver or when it takes three times as long to complete as they originally predicted. In addition, these companies don't want to impede sales of existing products while customers wait for future products. Finally, such companies don't want to be plagued with phone calls asking why the product is not ready.

If I were wise, I would probably assume this strategy of silence. But I can't help myself. I get enthusiastic about what we are working on or thinking about and want to share that information with fellow users. Besides, writing about sometimes spurs me to action and causes me to devote the necessary resources to the project.

So here is a list of what we are working on and an update of past promises. If I forgot something I mentioned in a previous Portable Paper, tell me, and I'll update you next issue.

### 128 EPROM PROJECT

**P+** As you may recall, back in April (Vol. 4, No. 3, Pg. 17) I discussed the possibility of 128K EPROMs. Currently it is only feasible to burn 64K EPROMs. If we could burn 128K EPROMs that would double the amount of software we could put on ROMs, thus expanding the capacity of the 12 socket ROM drawer.

We're still working on it. The good news is that the engineering consultant working on the project has built a prototype of the 128K EPROM. He has also located a reasonably priced ROM burner that can be plugged into the Portable Plus serial port. That way you will have the option of burning your own EPROMs if you don't want to buy the finished EPROMs from us. The bad news is the prototype does not work.

I am cautiously optimistic that we will be able to make a definitive announcement one way or another by next issue of *The Portable Paper*. However, I have been similarly optimistic almost all year and am still unable to announce anything.

### EPROM SUBDIRECTORY SIZE

**P+** We were hoping to crack the 256K subdirectory limit so we could put large programs and files in ROM (such as the WordPerfect dictionary and overlay file). However, it seems that there is no simple solution to this problem other than quite a bit of reprogramming. I'm open to any solutions.

### MOBILE RECHARGER AND POWER CUBE

**110** About a year ago we had to take two of our most popular products off our price list because we could not get a part from HP. The Mobile Recharger allows you to charge your HP110 or Portable Plus from your car's cigarette lighter. The Power Cube lets you charge up to four HP-IL devices using only one AC electrical outlet.

**P+** We recently secured enough of the necessary HP cords to build some of each of these units. By next issue we hope to put both products on the price list and ship back orders.

### WORLDPORT 2496 FAX

**110** After many, many months we finally got a unit in to test. As we suspected the FAX software does not work with either the HP110 or Portable Plus. I talked to the WorldPort programmer. He said he probably would have a little time soon to see if he can make the necessary changes. We'll be sending him portables and technical information as soon as he gives us the go-ahead.

### CONDOR ON ROM

**P+** We are having difficulty creating a 256K subdirectory made up of four 64K EPROMs. All CONDOR files must be in the same subdirectory. If anyone thinks they can help, give Larry Baldozier a call. I think we will find a solution.

### LOTUS 2.2

**P+** The software drivers have been written. However, the Lotus installation procedure must be modified. The problem is not so much technical as political. We have made the proper contact at Lotus and submitted a proposal. Initially he was not optimistic about giving permission to burn ROMs. However, there is hope for an HP150 version and a Portable Plus RAM version. My guess

that if we can create a version, we will ship around Summer of 1990.

**WORDPERFECT SCREEN DRIVER AND SMALLER SPELLER**  
WordPerfect 5.0 works quite well on the Portable Plus.

**P+** The one limitation is that you cannot preview what the printed page will look like before printing. Several people have talked to me about writing a screen driver. Currently, the leading candidate is reader and contributor Sergio Biguzzi. He is working on the project and tells me he is about three months away from finishing.

Sergio did something very clever to reduce the size of the dictionary. He used the WordPerfect 4.2 dictionary and converted it to 5.0 using the SPELLX program on the 5.0 disk. Sergio tells me the file is only 160K, which should make it ROMable. When we get the screen driver, we'll send a copy of the driver and the dictionary on a disk to all current owners of our PlusPerfect program at no charge.

#### WELTEC PHD SERIAL HARD DRIVE

**P+** As reported last issue, the PHD serial 20 Meg hard drive works fine with the LS/12 and Portable Vectra CS. However, it does not work with either the Portable Plus or HP110. We sent an HP110 and Portable Plus to Weltec with technical information. They spent some time looking at the problem. However, it seems it would take a major rewrite of both the software and PHD firmware for the drive to work with the HP110 or Portable Plus. Prospects don't look good.

#### GAMES DISK AND ROM

We keep collecting more games that work on the HP110 and Portable Plus. These include arcade games, logical games, and adventure games. I have someone now testing them and updating the documentation. I hope to make an announcement next issue on the contents and pricing of both the disk and ROM.

**110**

**P+**

#### MEMORY UPGRADES

**P+** Thanks to the prodding of Frank Keresztes-Fischer, I have sent a Portable Plus to an engineering firm to look into various possible memory upgrades (for example, increasing the amount of memory on the motherboard). I am not all that optimistic, but we will see.

#### NEW CATALOG

**110** There is a real need for an up-to-date catalog of our products for HP Portables. For now use the latest Portable Paper and the latest Portable Equipment Exchange. We hope to produce a catalog by the first quarter, 1990. However, it is an expensive, time-consuming operation that is out-of-date as soon as we produce it. We'll see.

**P+**

### We Can Upgrade Your 256K Portable Plus into a 512K Plus

**P+** We have figured out a way to convert any Portable Plus with 256K of memory (model numbers 45711C and 45711D, written on the bottom of the Plus) to 512K internal memory. We will charge \$479 to do the upgrade, assuming parts are available. Call Larry Baldozier (515) 472-6330 to set up an appointment.

### 1 Meg RAM/ROM and 2 Meg RAM Drawers Shipping Again For Portable Plus

**P+** We have recently been in contact with SoftWord in England. By the time you read this, they should have 1 Megabyte RAM / 8 Socket ROM drawers and 2 Megabyte RAM drawers for sale again for the Portable Plus. For a complete discussion of these drawers, see Vol. 2, No 4, Pg. 8, or the center spread advertisement in the late Vol. 2 or early Vol. 3 issues.

You will have to call us (515) 472-6330 for pricing and availability. The pricing varies due to changes in RAM prices and the exchange rate. Expect to wait three months before you receive the drawer (and hope that we can get it to you sooner). As of this writing, we are selling the RAM/ROM drawer for \$1895 and the 2 Meg drawer for \$2595. However, be sure to confirm pricing.

### UNIX-Style "Vi" Editor For HP An IBM-Compatible Computers

**110** Oak Hill Software has released a new version of "Personal Vi", a software product that runs a "Vi" text editor directly on the HP150, Portable, Portable Plus, Vectra, or IBM-compatible computer. Vi has become the standard UNIX environment text editor for both word processing and code development. With Personal Vi, personal computer owners can run a Vi editor directly on their HP or IBM-compatible computers rather than continuously shifting gears to some other less powerful editor.

**P+** Using the same command structure as the standard UNIX vi editor, Personal Vi provides full-function cursor motions, yank/delete/change commands, undo, map, text search with meta-characters, global text changes, DOS shell escape, wrap margin, labeled save buffers, optional line numbers, auto-indent, external filters, and other vi features. It also includes built-in paragraph formatting, line centering, and case conversion functions for word-processing applications. Printer control and page formatting utilities are also supplied.

**PV** Personal Vi does all editing directly in core memory buffers, minimizing RAM disk usage and the delay, noise, and battery consumption of disk access. The program can edit files up to 200,000 characters in length (depending on available memory), and special utilities are provided for breaking still larger files into smaller sub-files. The program also has an optional "visual beep" to replace the usual audible one, making Personal Vi easy to use in meetings without disturbing others.

**LS/12** Personal Vi comes complete with two versions of the software -- one for Vectra/PC/Compatible machines (both 3.5 and 5.25 inch disks supplied) and one for HP150/HP Portable Plus machines (3.5 single-sided disk supplied). The standard HP version requires about 69K to store. A full-featured, but more compact 57K HP110 version is included for editing files up to 30,000 characters in length. List price for the package, including manual, binder, and non-copy-protected disks, is \$169.

#### ORDERING INFORMATION

Personal Vi was developed by Oak Hill Software of Middletown, New Jersey. The HP version retails for \$195.

Price to Portable Paper subscribers, when ordered through Personalized Software, is \$155.

## World's Smallest MNP Modem

**110** WorldPort 2400/MNP, the smallest MNP Class 5 portable external modem available, has just been unveiled by **P+** Touchbase Systems. The WorldPort 2400/MNP supports the Microcom MNP Class 5 standard and has error **PV** correction and data compression features that allow both error-free and faster transmission of data over the tele- **LS/12** phone line. THE MNP Class 5 standard is the most widely installed hardware error-correction protocol in the world, with an installed base of more than half a million MNP modems worldwide.

Data speed of the new modem is 2400 bits per second with effective throughput up to 4800 bps. The WorldPort 2400/MNP is battery-powered, operates with all HP Portables through the serial port, is compatible with both Bell and /CCITT transmission protocols, and allows telephone connection through both direct connect and acoustic couplers. The modem is pocket-sized and lightweight and includes AT command set compatibility, auto-dial/auto-answer/auto-rate select, a speaker and LED indicators.

Touchbase Systems is well established data communications field and produces a number of popular WorldPort modems. In addition to the 2400/MNP Personalized Software carries the WorldPort 2400 and the WorldPort 1200. Pricing information is below

### ORDERING INFORMATION

The WorldPort series of products were developed by Touchbase Systems of Northport, New York. Retail prices and prices to Portable Paper Subscribers when ordered through Personalized Software are as follows:

WorldPort Product	Retail Price	Subscriber Price
2400/MNP	\$499	\$425
2400	\$359	\$319
1200	\$199	\$179

## Subscribers Disks Will Be Only Available With Subscription

**110** The purpose of the subscribers disk has always been to supply useful utilities to our faithful Portable Paper subscribers. To many these utilities alone have been worth **P+** the price of the subscription and more. We have there- **PV** fore decided that only Portable Paper subscribers will be able to obtain the disks as part of their subscription, no **LS/12** additional charge. To qualify for a disk you must have purchased a subscription for the entire year.

With this issue we have sent renewal notices to everyone whose subscription expires before December, 1990. That way everyone who wishes can complete their 1990 subscription and receive their 1990 disk along with the January, 1990 issue.

## 1986-1989 Index Soon Available

The 1986-1989 index to *The Portable Paper* will be sent out with the January, 1990 issue.

## First Issue Of The UltraLite Connection Ships

**110** Since HP seems to be getting out of the portable business, Personalized Software needs to find other markets if it is to survive and thrive in the future. We plan to continue **P+** supporting HP Portables and HP150's as long as there is a demand. However, we must plan for the future. **PV**

**LS/12** NEC welcomed our company (known to UltraLite users as Personalized Computing, Inc). They liked *The Portable Paper* and have been helpful and encouraging about our doing a newsletter on the UltraLite.

The UltraLite uses a similar philosophy as the HP110 and Portable Plus. It offers a 1 or 2 Meg "Silicon hard drive" (electronic disk), and you can insert ROM applications into the UltraLite -- one at a time -- into a ROM card slot. I've started using the UltraLite and here are my initial impressions.

I like the machine. It's a four-pound, true-compatible with a backlit screen. Starting in a few months its system battery will be easily replaceable (without data loss), somewhat compensating for its 1.5 hour battery life.

The 110 and the Plus still have definite advantages. The UltraLite scratches easily and I would hate to drop it. HP Portables are rugged with battery life of over 12 hours. HP Portables allow multiple programs in ROM.

In addition there are a number of subtleties that really make me appreciate HP engineering. For example, there is no automatic time out feature in the UltraLite. That means if you want to stop using your UltraLite for a little while, you must turn it off to spare the battery. Then you have to turn it back on and wait for a boot up sequence. That can take up to half a minute. Secondly, for compatibility reasons, NEC made the cluster size 4096 bytes (HP made theirs 512 bytes). That means, in practical terms, whenever you save a file on the UltraLite, 2K is wasted. On the HP only 256 bytes are wasted. Finally, for those of you who don't like PAM, you should see the MicroSoft manager built into the UltraLite. It's clumsy, takes up too much ROM space (over 100K), and unintuitive to use. It also knows nothing about the ROM drive. On the Plus if you put a ROM in, the application automatically shows up in PAM. Not so with the UltraLite.

Still two Megabytes of Edisc weighing only four pounds is worth a lot. The UltraLite keyboard is surprisingly good to use, and the UltraLite has a quality look and feel to it.

In early October we sent out our premier issue of The UltraLite Connection. I hope some of you purchase an UltraLite and join us for the years to come with both our publications.

We are authorized to sell the UltraLite. UltraLite prices have recently dropped to \$2995 and \$2495 for the 2 Megabyte and 1 Megabyte versions respectively. We sell these machines with about a 20% discount. Please call us for pricing and availability. We'll include a 1990 subscription to *The UltraLite Connection* with your purchase of the UltraLite from us.

# MAXIMUM POWER FOR YOUR PORTABLE PLUS

*Easy-to-use, lightning-fast  
ROM chips save valuable Portable Plus memory  
and eliminate the need for a disk drive.*



The most powerful and unique feature of your Portable Plus is that it lets you store programs on ROM (Read-Only Memory) chips for instant access.

Almost all other portable computers require a disk drive in order to function. A disk drive—even a portable one—is a bulky piece of equipment, easily breakable, and slow in loading programs.

By contrast, a ROM chip weighs next to nothing, is virtually indestructible, and lets you load programs instantly. (Programs on ROM chips don't take up any space on your Edisc.)

All of which means that your 9-pound Portable Plus is **the fastest, most portable, and most reliable computer you can own**—provided, of course, you take full advantage of its ROM technology.

## **YOUR SOFTWARE DRAWER WAS MEANT TO BE FULL**

The engineers at Hewlett-Packard designed the Portable Plus so it could accommodate an optional "software drawer" containing 12 ROM sockets. Clearly, their intention was that those sockets be filled with useful programs.

But if you're like most Portable Plus users, you probably are using

just a few of the sockets for ROM-based programs like Lotus 1-2-3 or MemoMaker.

That's fine as far as it goes, but if you aren't using *all* the ROM sockets—or if you have to carry around an HP9114 disk drive wherever you go—*then you are not using your Portable Plus to full advantage.*

To start using the *full* potential of your Portable Plus, look over the chart at the far right. It contains more than 50 programs and utilities available on ROM chips from Personalized Software.

Taken together, these ROMs cover *every application you're likely to need*—from word processing to spreadsheets to data

communications, graphics, programming languages, and more. Which means once you install these ROMs, you'll have everything you need right inside your Portable Plus. *You'll never have to carry a disk drive again.*

We invite you to browse through the chart, read the information at the right, and then order one or more ROMs today. You'll find them to be fast, reliable, and an incredible boost to your productivity.

Whatever your reason: to free up valuable memory space... to eliminate the need for an external disk drive... or just for the convenience of lightning-fast program loading, *fill your software drawer with ROMs* and you'll turn your Portable Plus into the powerhouse its designers intended it to be.

With our exclusive Double Guarantee, the risk is all ours. Why not order right now?

P.S. If you have questions about any of the ROMs, give us a call. Brian or David will be happy to make some recommendations as to which ROMs might best meet your needs for word processing, spreadsheets, or whatever applications you're interested in.

## **EASY TO INSTALL**

We supply clear instructions and diagrams with every ROM order. If you prefer, send us your software drawer and we will install your ROMs for you—and test them—at no charge.

To remove your software drawer, first back up your A drive (so you won't lose your data), then use an ordinary screwdriver to remove the two outside screws on the drawer.

You won't be able to use your Portable Plus without the software drawer, so we recommend you call us first to make sure the ROMs you want are in stock, and to set an appointment for installation.

That way, we can install and test your new ROMs the day we receive your software drawer, then ship your drawer back that same evening. Return shipping within the Continental U.S. via UPS Second-Day Air is free for all orders over \$200. Please add \$15 to your order if you want overnight return shipping.

(In most cases, if you set an appointment in advance and use overnight shipping both ways, you'll only be without your software drawer for less than two business days. We'll ship the manuals and other materials in advance by surface carrier so you'll have them by the time you receive back your software drawer.)

## **HOW TO ORDER ROMS**

To order, use the postage-paid order form in the center of this issue. For even faster service—or if you have questions about any of our ROMs—give us a call.

## **OUR EXCLUSIVE DOUBLE GUARANTEE ON ROMS**

### **60-DAY GUARANTEE OF SATISFACTION**

If, within 60 days, you are dissatisfied with a ROM product for any reason, you may return it for a full refund.

### **2-YEAR GUARANTEE AGAINST DEFECTS:**

If a ROM proves defective at any time within 2 years, we will replace it at no charge.

## IMPORTANT INFORMATION ABOUT OUR ROMS

We offer two kinds of ROM chips. One kind we produce ourselves; these are offered as part of our "ROM Backup Packages" (see below). The other kind are manufactured by Hewlett-Packard; we call these simply "HP ROMs."

### ROM Backup Packages

A ROM Backup Package includes both the disk version of a program and the ROM version—plus the standard User's Manual and additional instructions for installing and using the ROM. (In the chart, prices of products marked "PS" are for entire ROM Backup Package.)

According to the agreements we have with the original software vendors, our ROM version is considered a backup copy of the disk version. Unless you already own the disk version, we cannot sell you the ROM Backup by itself.

### Please note:

1. If you purchased the disk version of a program from us, we have that in our records. If you purchased the disk version elsewhere, you will need to show us proof of purchase before we can sell you just the ROM Backup.

2. Prices for ROM Backups alone are as follows:

Best of DOS Tools	.....	\$129.
The Editor	.....	95.
HPDuette	.....	95.
HPrint	.....	95.
Shelp	.....	55.
SideWinder	.....	55.
Shelp + SideWinder	.....	95.
Sketch	.....	95.
Squish Plus	.....	135.
SuperROM	.....	49.
TermPlus	.....	95.
Turbo Pascal 3	.....	95.
Typing Whiz	.....	95.
Webster's Speller	.....	179.
WordPerfect	.....	295.

3. It is important that you read and adhere to the licensing agreement that comes with the disk version of any software you buy, because the same agreement applies to the corresponding ROM Backup. In most cases, this means you can use only one version of the software at a time on only one computer system at a time. Remember, the ROM is a backup copy of the software, not an independent second copy.

### HP ROMs

The HP ROMs that we sell do not include (or require) the corresponding disk versions. They are the same ROMs that HP sells, except ours are used—which turns out to be *better* than buying them new. Here's why:

Unlike other used products you can buy, there are no moving parts on a ROM, and nothing that can wear out. Because of this, our two-year guarantee against defects applies to used HP ROMs as well as to our own ROM Backups. (Two years is twice the guarantee against defects that Hewlett-Packard offers.)

Our used HP ROMs are also covered by our unique 60-day guarantee of satisfaction.

Best of all, our used HP ROMs are priced as much as 50% below retail. Look at the chart at the right and compare! (In the chart, "Retail price" of HP ROMs is HP's price new. "Subscriber price" is our price used.)

## SOFTWARE AVAILABLE ON ROM

For product details, see individual ads elsewhere in this issue, in our catalog, or refer to articles in past issues. In this chart, "Type" refers to either HP (used HP ROM) or PS (Personalized Software ROM Backup Package -price includes both ROM and disk versions). **CALL FOR AVAILABILITY OF USED HP ROMS.**

Product	Part Number	Retail Price	Subscriber Price	Type	No. of chips	Notes
<b>WORD PROCESSORS</b>						
WordPerfect 5	WD11NK	\$919.00	\$595.00	PS	6	384K of files includes PlusPerfect, main WP program, help files, printer drivers, etc. Does not include required 300K wp.fil file, spelling checker, or thesaurus.
The Editor II	ED12NK	224.00	194.95	PS	1	The Editor version 1 is available as part of our SuperROM chip (see "Combined ROMs," below).
MemoMaker	-	-	-	HP	-	Comes on same chip as Time Manager (see "Combined ROMs" below.)
MSWord	MS20UR	394.00	199.00	HP	1	
MultiMate	MM20UR	520.00	295.00	HP	1	
<b>WORD PROCESSING UTILITIES</b>						
Format110	-	-	-	PS	-	Comes as part of SuperROM (see "Combined ROMs")
FormatPlus	FP13NK	174.95	164.95	PS	1	
HPrint	HP12NK	175.00	170.95	PS	1	
Mini PrinterTalk	-	-	-	PS	-	Comes as part of SuperROM (see "Combined ROMs")
Webster Speller	WB13NK	258.95	248.95	PS	2	
<b>SPREADSHEETS AND UTILITIES</b>						
Lotus 123,1A	LT12UR	495.00	295.00	HP	2	
Lotus 123,2.01	LT15UR	625.00	395.00 <sup>2</sup>	HP	3	3rd ROM containing help doesn't have to be installed.
Lotus 123,2.01	LT11HR	625.00	499.00 <sup>2</sup>	HP	3	Pricing of NEW HP ROM if used ROM not available.
SideWinder	SW12NK	134.95	124.95	PS	1	Also available on a ROM with Shelp, and on our SuperROM chip (see "Combined ROMs" below).
<b>DATABASE PROGRAMS</b>						
Exec Card Manager	EC11UR	395.00	225.00	HP	1	(Lotus 1-2-3 can also be used as a database.)
<b>COMMUNICATIONS</b>						
PC2622	PC13UR	395.00	239.00	HP	1	VT100 and HP Terminal emulator.
Reflection	RF11UR	525.00	295.00	HP	1	Minor upgrade of PC2622
TermPlus	TE13NK	194.95	174.95	PS	1	Includes FormlIBM, Jetctrl, and other great utilities.
<b>PRODUCTIVITY BOOSTERS</b>						
Best of DOS Tools	DT12NK	179.00	168.95	PS	2	Selected utilities from DOS Tools <sup>1</sup>
FilePlus	FE14NK	164.95	154.95	PS	1	
HP Calculator	CL11NK	95.00	95.00	PS	1	From our 1987 Subscriber Disk
HP Duette	DU13NK	194.95	184.95	PS	1	Contains Portable Plus half of software
Shelp	SH12NK	110.00	104.95	PS	1	Includes note extraction program. Shelp also available on a ROM with SideWinder, and as part of SuperROM chip (see "Combined ROMs" below).
Time Manager				HP		Comes on same ROM as MemoMaker (see "combined ROMs" below).
Typing Whiz	TW12NK	144.95	134.95	PS	1	
Squish Plus: *NEW*	SQ11NK	264.00	234.95	PS	2	
<b>GRAPHICS</b>						
Sketch	SK12NK	175.00	170.95	PS	1	(Lotus 1-2-3 can also be used for graphics.)
<b>PROGRAMMING LANGUAGES</b>						
MSBasic	MS21UR	331.00	165.00	HP	1	This is not GWBASIC.
<b>COMBINED ROMs</b>						
MemoMaker/TimeMgr	MM21UR	245.00	119.00	HP	1	
Shelp,SideWinder	SH13NK	234.95	214.90	PS	1	Also includes SideWinder enhancement utility.
SuperROM (5 programs on one chip):The Editor, Format110, Mini PrinterTalk, Shelp, Sidewinder	SU11NK	474.00	299.00	PS	1	Mini PrinterTalk is the abbreviated version included on the PrinterTalk disk; it is functionally equivalent to Printertalk for most applications. Shelp and SideWinder are the same versions as on the individual ROMs described above.
<b>BUNDLES</b>						
Editor Pack +	FM17NK	823.00	599.00	PS	5	(Editor II, Webster, FormatPlus, FilePlus)
Editor Pack	FM16NK	658.00	499.00	PS	4	(Editor II, Webster, FormatPlus)

<sup>1</sup>Utilities included in the Best of DOS Tools ROM backup Package are as follows. For program details, see catalog.  
 PACK DUMP TY CYPHER RENDIR WHEREIS TEE SDL FDATE LABEL DIRS TRANSLIT  
 CLEAN DIRALL ARCE MOVE OFF CHANGE ARC520 MOVEALLTRIM BEEP SQPC SM  
 VDL TMA TJETA FCOPY ASK PRNCONFWAIT FGREP XCOPY FDUMP COPYNEW  
 Note: ARC520 is shareware; the author normally requests a \$35 contribution. However, we've already paid your user fee.

IMPORTANT: All HP ROM prices given in this chart (unless otherwise stated) are for used ROMs. Used HP ROMs (especially Lotus 2.01) are sometimes not in stock. Call to verify availability of used HP ROMs and pricing on new HP ROMs if used ROMs unavailable.

# Official Personalized Software Price List

(Every attempt is made to keep pricing stable. However, prices subject to change without notice.)

## THE PORTABLE PAPER

Product	Part Num.	Retail Price	Subscr. Price
<b>The Portable Paper</b>			
1 Yr Subscription	PPN1PS	\$55.00	
2 Yr Subscription	PPN2PS	99.00	
1 Yr. Renewal	PPR1PS	55.00	
2 Yr. Renewal	PPR2PS	99.00	
1986-8, 3 Yr back issues	PP13PB	99.00	
1988 back issues	PP12PB	39.00	
Individual Back issue	PP99PB	9.20	
1987 Subscriber Disk	SB12NS	115.00	9.50
1988 Subscriber Disk	SB13NS	115.00	9.50
1989 Subscriber Disk	SB14NS	115.00	9.50
PP Binder Vol.1	PB11NM	7.00	
PP Binder Vol.2	PB12NM	7.00	
PP Binder Vol.3	PB13NM	7.00	
PP Binder Vol.4	PB14NM	7.00	
PP Binder Vol.1-4	PB15NM	25.00	
<b>Free Catalogs</b>			
HP Portable	CATPOR	0.00	
HP150	CAT150	0.00	

## SOFTWARE AND ACCESSORIES

<b>Word Processors</b>			
The Editor II	ED11NS	129.00	99.95
Editor Pack	FM16NX	289.00	195.00
(Editor II, FormatPlus, Webster Speller)			
Editor II Disk Upgrade	ED14NG	35.00	35.00
The Editor II/Formatter	ED13NX	149.95	119.95
VI (Unix-like editor)	VI11NS	195.00	169.00
WordPerft 4.2 ss HP150	WD12NS	435.00	339.00
WordPerft 4.2 ds HP150	WD11NS	435.00	339.00
WordPerft 5.0 ds HP150	WD13NS	495.00	395.00
WordPerfect 4.2 P. Plus	WD18NS	435.00	339.00
WordPerfect 5.0 P. Plus	WD17NS	645.00	395.00
(Includes PlusPerfect)			
PlusPerfect	WD14NS	150.00	129.00
<b>Word Processing Utilities</b>			
Format110	FM12NS	39.95	35.95
FormatPlus	FP11NS	79.95	69.95
FormatPlus Upgrade	FP14NG	35.00	35.00
MemoMaker Pack	FM14NX	159.90	125.00
(Format Plus, Webster Spelling Checker)			
Formatter	FM11NS	59.95	49.95
HPrint	HP11NS	80.00	75.95
PrinterTalk	PT11NS	49.95	44.95
PrinterTalk, Format110	PT12NS	89.90	59.95
RightWords Dictionary Ext.	RW12NS	29.95	29.95
RightWriter	RW11NS	95.00	89.00
Webster Speller	WB11NS	79.95	69.95
WordPlus Speller	WP11NS	150.00	99.00
<b>Database/Accounting Software</b>			
Condor 3	CR11NS	495.00	379.00
Condor Jr	CR13NS	99.95	89.95
Dac-Easy Accounting	DC11NS	150.00	129.00
<b>Communications</b>			
WorldPort Modem 1200	WM11NH	199.00	179.00
WorldPort Modem 2400	WM12NH	359.00	319.00
WorldPort Modem 2400/MNP	WM13NH	499.00	425.00
WorldPort cable	WM14NM	30.00	20.00
WP 1200 Upgrade kit	WM13NG	199.00	179.00
WP Acoustic coupler	WM16NH	79.95	79.95
Kermit	KE11NS	19.00	19.00

Relay Gold (Plus)	RG11NS	295.00	279.00
TermPlus	TE12NS	99.95	79.95
Term110	TE11NS	99.95	79.95
CompuServe starter kit	CM11NS	39.95	35.95

## Productivity Boosting Utilities

BacTools	BC11NS	49.95	39.95
Compuserve Starter Kit	CM11NS	39.95	35.95
DOS Tools	DT11NS	44.95	39.95
FilePlus	FE12NS	69.95	59.95
HP Duette	DU11NS	99.95	89.95
HP150 PC Emulator	PC11NS	19.95	19.95
HP9114 Empowerer	PR12NM	99.95	89.95
Norton Utilities Adv.	NU12NS	150.00	129.00
Norton Utilities	NU11NS	99.95	89.95
PrintMaster (P.Plus)	PR11NS	79.95	69.95
Private File	PF11NS	39.95	34.95
ReadHP	RD11NS	79.95	69.95
Shelp	SH11NS	55.00	49.95
Squish Plus (P.Plus)	SQ11NS	129.00	99.95
Squish Plus (Vectra)	SQ12NS	99.95	89.95
Tiger Fox	TF11NS	32.95	29.95
Time Manager	SB11NS	9.50	9.50
Typing Whiz	TW11NS	49.95	39.95

## Graphics

Logitech Mouse	MS14NM	119.00	99.95
Logitech Mouse P.Plus System	MS15NM	219.00	179.95
P.Plus Mouse Sftwre	MS11NS	70.00	60.00
P.Plus Mouse Cable	MS13NM	30.00	20.00
Sketch	SK11NS	80.00	75.95
Sketch Halftone disk	SD11NS	9.50	9.50
Flowcharting II+	FL11NS	299.00	269.00

## SpreadSheet and Statistics

101 Macros	MC11NS	69.95	62.95
Lotus 123, v2.01 / Symphony			
P.Plus Software Driver	LT14NS	69.95	59.95
SideWinder and Utilities	SW13NS	79.95	69.95
SideWinder	SW11NS	69.95	59.95
Statistix	ST11NS	169.00	159.00

## File Transfer

HPDuette for P.Plus	DU11NS	99.95	89.95
LapLink	LA11NS	139.95	119.00
Link110	LK12NS	90.00	85.95
Link Plus	LK11NS	90.00	85.95
Link150	LK13NS	90.00	85.95
ReadHP	RD11NS	79.95	69.95

## Programming

Turbo Pascal 3.0 Optimizer	TP17NS	125.00	119.00
Turbo Pascal 5.5:			
for P.Vectra, LS/12, IBM PC	TP55NS	150.00	135.00
for Portable Plus, HP150	TP52NX	219.00	175.00
upgrade for P.Plus, HP150			
(must own IBM PC Turbo 5.5)	TP15NS	69.00	69.00

## Project Management

PertMaster for HP110	PR11NS	695.00	499.00
PertMaster for P.Plus	PR12NS	695.00	499.00
PertMaster for HP150	PR13NS	695.00	499.00
PertMaster for Vectra	PR14NS	695.00	499.00
Milestone	ML11NS	99.95	89.95

## Integrated Packages

T/Maker (HP110)	TM11NS	99.95	95.00
T/Master (Plus, Vectra)	TM12NS	159.00	149.00

## Portable Plus Memory Drawers

1 Meg RAM/8 Socket ROM drawer			CALL
2 Meg RAM drawer			CALL



### LS/12, Portable Vectra Products

Diconix printer - parallel	DT11NH	499.00	399.00
Diconix printer - serial	DT12NH	519.00	415.00
EtherNet Adapter	ET11NH	695.00	629.00
Expansion Chassis (LS/12)	EX11NH	499.00	449.00
FloppyDriver	FD11NS	89.95	79.95
HP-IL Card-P. Vectra CS	HP16NM	245.00	235.00
LapLink	LA11NS	139.95	119.00
LapTape (LS/12)	LA11NH	795.00	695.00
NoSquint	NO11NS	39.95	37.95
Numeric Keypad (LS/12)	NU11NH	129.00	115.00
PassPort (LS/12)	PA11NS	79.95	74.95
Squish Plus	SQ12NS	99.95	89.95
Statpower PC100+ Inverter	ST11NH	179.00	169.00
TravelDisk			CALL
(10MB to 250MB New or Used Hard Disks for P.Vectra)			
Weltec 5.25" Drive (LS/12)	WE11NH	349.00	299.00
Weltec Serial Hard Disk (PhD)	WE12NH	1099.00	899.00
WorldPort Fax 2496	WF11NH	699.00	599.00

### Peripherals

Manzana 1.44 Meg, 3.5"			
PC External Drive	MZ12NH	385.00	345.00
Manzana 1.44 Meg, 3.5"			
PC Internal Drive	MZ11NH	200.00	189.00
Manzana Controller	MZ13NM	95.00	89.00
Numeric Keypad for P.Plus	TS11NM	139.00	135.00

### Accessories

10 3.5" disks/case	DS11NM	64.90	29.95
10 1.44Meg 3.5" disks	DS12NM	99.95	69.95
Mobile Recharger	PR11NM	59.95	49.95
FieldPro Padded Laptop Case	CS12NM	99.95	89.95
FieldPro Padded Case for ThinkJet or			
HP9114 Disk Drive	CS11NM	39.95	37.95
Targus Leather Case	TA11NM	199.95	179.00
Targus Nylon Case	TA12NM	99.95	89.95

### Learning Material

How to Use the HP			
Portables Video Tapes	VP11NM	150.00	119.00

### Upgrade

FastPlus (CPU upgrade)	FA11NG	250.00	250.00
256K to 512K Plus Upgrade	256KNG	475.00	475.00

### **PORTABLE PLUS SOFTWARE ON ROM**

If the product number ends with "UR", it is a used HP ROM. If it ends with "NK", it is a new Personalized Software disk plus ROM backup. The price in the "Backup Price" column is valid only for those who already own the software disk.

Product	Part Num.	Retail Price	SubsBackup Price	Price
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### Word Processors

WordPerfect 5	WD11NK	940.00	595.00	295
The Editor II	ED12NK	224.00	194.95	95
MMkr/TmMgr	MM21UR	245.00	119.00	
MSWord	MS20UR	394.00	199.00	
MultiMate	MM20UR	520.00	295.00	
Editor Pack +	FM17NK	823.00	599.00	
(Editor II, Webster, FormatPlus, FilePlus)				
Editor Pack	FM16NK	658.00	499.00	
(Editor II, Webster, FormatPlus)				

### Word Processing Utilities

FormatPlus	FP13NK	174.95	164.95	95
HPrint	HP12NK	175.00	170.95	95
Wbster Speller	WB13NK	258.95	248.95	179

### Spreadsheets and Database

Lotus 123,1A	LT12UR	495.00	295.00
Lotus 123,2.01	LT15UR	625.00	395.00
New ROM: Lotus 123, 2.01	LT11HR	625.00	499.00

Exec Crd Mgr	EC11UR	395.00	225.00
SideWinder	SW12NK	134.95	124.95

### Communications

PC2622	PC13UR	395.00	239.00	
Reflection	RF11UR	525.00	295.00	
TermPlus	TE13NK	194.95	174.95	95

### Productivity Boosters

DOS Tools	DT12NK	179.00	168.95	129
FilePlus	FE14NK	164.95	154.95	95
HP Calculator	CL11NK	95.00	95.00	
HP Duette	DU13NK	194.95	184.95	95
Shelp	SH12NK	110.00	104.95	55
Squish Plus	SQ11NK	264.00	234.95	135
Typing Whiz	TW12NK	144.95	134.95	95

### Graphics

Sketch	SK12NK	175.00	170.95	95
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### Programming Languages

MSBasic	MS21UR	331.00	165.00	
Turbo Pascal 3	TP13NK	No longer published		95

### Combined ROMs

Shelp,SdWndr	SH13NK	234.95	214.90	95
SuperROM	SU11NK	474.00	299.00	49
(Editor I, Format110, PrinterTalk, Shelp, SideWinder)				

### **USED PORTABLE EQUIPMENT**

**IMPORTANT NOTE TO USED EQUIPMENT BUYERS:** Call for availability before placing order (especially Lotus 2.01, ECM). If used product unavailable, we'll get you new item at discount.

### Used HP110 and Portable Plus Computers

512K Plus With Modem	PP15UC	\$3395 <sup>1</sup>	\$1595
128K Plus With Modem	PP11UC	3190 <sup>1</sup>	995
HP110 Portable	PQ11UC	3000 <sup>1</sup>	495
HP110,ThinkJet,HP9114	PP40UX	4300 <sup>1</sup>	795

### Used Printers For HP110, Portable Plus, Vectra

HP-IL ThinkJet Printer	TJ11UC	\$ 495	\$ 199
New DeskJet Plus Printer	DJ12HC	995	795
New DeskJet Printer	DJ11HC	795	639

### Used HP110/Portable Plus Disk Drives

HP9114A Disk Drive	DD11UC	\$ 795 <sup>1</sup>	\$ 199
HP9114B Disk Drive	DD12UC	795	299

### Used HP Portable Plus Memory Drawers

New HP 1 Mg RAM Drw.	MM11NC	\$1275	\$ 995
384K HP RAM Drawer	MM12UC	982 <sup>1</sup>	295
128K HP RAM Drawer	MM13UC	436 <sup>1</sup>	150
128K HP Memory Card	MM14UC	273 <sup>1</sup>	125
HP ROM Software Drawer	SW11UC	195	99

### Miscellaneous Used HP Portable Peripherals

HP-IL Card For IBM PC	IL11UM	195	119
HP-IL 7470A Plotter	PL11UM	1095 <sup>1</sup>	650
P.Plus V.Intfce+Monitor	VM12UM	750 <sup>1</sup>	275

<sup>1</sup>Denotes products no longer manufactured. The "Retail Price" of these items was the price at the time of discontinuance. These items are excellent buys.

### **NEW BATTERIES, INK CARTRIDGES AND CABLE**

Standard Parallel Cable	PL11NM	29.95	24.95
Serial printer cable (110,Plus)	SC13NM	42.00	27.95
HP92221P ser.prm cab 110,P+	SC13HC	42.00	42.00
Portable Plus Battery	BT11HC	49.95	49.95
ThinkJet Battery	BT14HC	47.00	47.00
HP110 Battery	BT12HC	29.00	29.00
HP9114 Battery	BT13HC	65.00	65.00
HP-IL Cable, 1 Meter	HC11HC	8.00	8.00
ThinkJet plain paper cartridge	TJ15HC	10.95	10.95
ThinkJet inkjet paper cartridge	TJ14HC	10.95	10.95
HP92261N inkjet 2500 zfold	TJ12HC	64.95	59.95

# · P O R T A B L E · PROFILES

*Let us profile you or your company's use of the Portable. Tell us about your interesting or unusual application of The Portable. Or share a description of how you use it: let other readers benefit from your experience. Give us a call (ask for Hal or Richard), or send us a draft on disk, paper, or Fax to Personalized Software, P.O. Box 869, Fairfield, IA 52556, Phone: (515) 472-6330, Fax: (515) 472-1879.*

## Portable Computing With The Plus

**P+** by Jim Scheef

My basic approach to portable computing has been to use a portable as a peripheral to a desktop computer. Both of the HP portables lend themselves particularly well to this approach. The fact that they are "MS-DOS" machines helps establish this relationship between the two computers, but the key is the HP-IL link. Transferring a file is as easy as copying from one disk to another. Once the Plus is parked on the desk and connected to the HP-IL, all of the files on it are instantly available to desktop application programs. This is real interoperability.

I started using portables almost five years ago with a borrowed HP-110. When I purchased a portable for my own use, the Portable Plus was the obvious choice. The upgrade to the Plus was needed to support full-screen communications with an IBM mainframe. More about this later.

The programs I use are: Relay Gold (this replaced Reflections for telecommunications); Time Management with several add-ons, Lotus 1-2-3; Duette; Memomaker; Webster's Spelling Dictionary; and several DOS utilities.

### TIME MANAGER

Over the years I have engaged in a search for the perfect calendar program. Paper calendars, while portable, did not provide the 'to do' and follow-up capabilities I need. When I first used an HP 110, I fell in love with Time Manager. It's combination of appointment and to-do lists is the simplest yet most efficient calendaring program I have seen. I've experimented with several other programs but TM was a major reason for purchasing a Portable Plus. Since then I have been adding accessory programs from either CompuServe or the Portable Paper Subscriber Disks. These add-on programs enhance TM and make it even more valuable. TMA is worth the cost of RAM space (22K) for the 'month at a glance' calendars it prints. CAL gives

a two-week display that shows the number of appointments and to-do items set for each day. This gives a quick idea of just how overworked you are at any point in time. The latest addition is DW, a program from the 1989 Portable Paper Subscriber Disk. Much faster than either TMA or CAL, DW lets you visually search daytime appointments quickly and efficiently. An option to show evening hours would make the program even more useful.

### RELAY GOLD

Several months back I wrote a review of Relay Gold for the Portable Paper so I won't go into it so thoroughly here (see PP, Nov/Dec, 1988, Pg.9). Suffice it to say, it has revolutionized how I use the Plus for communications. Relay allows very easy file transfer to and from the IBM mainframe. This means that it is no longer necessary to carry a 9114 on longer trips. With the ability to transfer files, the mainframe becomes a disk drive for the portable. When space gets tight, just upload a few files. They can be transferred back if needed or transferred to the desktop upon return to the office.

### DUETTE

This is your ace in the hole. Here is insurance for the day when the closest 9114 is in the next state and you absolutely have to get a file onto a desktop. Together with Duette in ROM, I carry an adapter cable to mate the Plus's non-standard serial connector to an IBM-standard 25-pin cable. Tucked away in a corner of my brief case is a copy of the Duette program for the desktop. A few minutes to make the connection and the file can be transferred in a wink. Since the cable weighs only three or four ounces, this is easy-to-carry insurance.

### LOTUS 1-2-3

You might be surprised by my use of Lotus 1-2-3. I don't do budgeting or any of the other "traditional" spreadsheet applications on the Plus. My only continuous application is my running log. Every day (almost) I enter the miles run, time and pulse rate into a database in 1-2-3. Several neat formulas calculate the pace in minutes per mile. The point of this is that the database is there when I need it. That's what portable computing is all about. Of course, I also use Lotus for small ad-hoc spreadsheet, or to start the development of larger spreadsheet applications that will be completed on the desktop, but this is a relatively minor use of the portable.

### WEBSTER'S SPELLING CHECKER

Webster's Spelling Dictionary has had a major effect on my use of the Plus. Before Webster's, any document for distribution had to be transferred to a desktop before final printing to check spelling. I simply cannot trust myself to proofread a document and find spelling errors. OK, I just can't spell worth beans. Spell checkers have been one of the major benefits of the personal computer revolution, in my humble opinion. Since the desktop computer is not always available, I was often forced to send out documents that contained my best guess at spelling. Now that is no longer necessary and my embarrassment quotient is much more acceptable when I send electronic mail or FAX a document while traveling.

Whether you want to learn programming or you're a seasoned programmer, the best programming language for your Portable Plus is

# Turbo Pascal

—and our TurbPlus Integrator lets you use it to maximum advantage!

Pascal is the most popular computer language in university classes and with computer enthusiasts throughout the world who appreciate Pascal's modern programming structure.

Pascal is powerful, coherent, and—with Turbo Pascal 5.5—faster than ever before. (Turbo 5.5 compiles more than 27,000 lines of code per minute on an 8 MHz IBM AT.)

The IBM PC version of Turbo Pascal 5.5 offers an integrated programming environment that includes pull-down menus and a built-in text editor. You can edit, compile, and quickly find and correct errors all without leaving the integrated environment.

Another great advantage of Turbo Pascal is that assistance is available from many sources. Numerous books, articles, public domain programs, and even a CompuServe forum are devoted to helping people use the Turbo language.

## GOOD NEWS, BAD NEWS, AND GOOD NEWS

The good news is that the Turbo Pascal 5.5 command line compiler runs on the Portable Plus, as do many of the utilities that come with the program.

The bad news is that 5.5's integrated en-

vironment won't run on the Portable Plus, nor will some of its standard units of code—in particular, a unit called CRT that allows writing directly to the computer's screen.

*The other good news is that a program of our own called the **TurbPlus Integrator** eliminates most of the bad news.*

## INTEGRATED TURBO ENVIRONMENT FOR THE PORTABLE PLUS

The TurbPlus Integrator serves as a Turbo command center, or shell. You load TurbPlus, then call your own text editor (Memo-Maker, The Editor, or whatever one you use) by pressing a single function key.

You then use your editor to create Turbo Pascal code. When you exit your editor, you're back in the TurbPlus shell automatically. Next you call Turbo Pascal (by pressing a single function key) to compile the code or test for a run-time error.

If you need to make changes in your code, you simply exit Turbo, call your text editor, and edit the code.

When you've created a clean final version, you then can run the Turbo Optimizer compiler from within TurbPlus. The Optimizer (which works perfectly on the Portable Plus) produces a faster, more compact version of your code.

TurbPlus also lets you exit to DOS, execute any DOS command, and then return to TurboPlus. The TurbPlus master disk includes the TurbPlus source code, written in Turbo Pascal, for you to study or modify.

## CRT UNIT FOR PORTABLE PLUS

Clearly, TurbPlus gives Portable Plus users an integrated programming environment similar to the one that comes with the IBM

PC version of Turbo 5.5. But what about those units of code from Turbo 5.5 that don't run on the Portable Plus?

Well, we haven't provided a replacement for all of them, but we have for the most important one: the CRT unit. Included with the TurbPlus Integrator is a unit called **HPCRT**, which works on the Portable Plus in the same way as Turbo Pascal's standard CRT unit works on an IBM PC.

HPCRT allows you to program lightning-fast screen updates on the Portable Plus. It allows you to program a clear-the-screen function. It allows you to make the Portable Plus read keystrokes without displaying them (so users can enter passwords without anyone reading them).

In short, our Portable Plus version of Turbo Pascal 5.5 together with our TurbPlus Integrator gives you most of the functionality of the IBM PC version.

If you're into—or getting into—the highly productive world of programming, there's no better product than Turbo Pascal 5.5. If you use an Portable Plus, there's no better addition than our TurbPlus Integrator.

Order them today at our risk.

<b>Turbo Pascal 5.5</b>	<i>Suggested</i>	<i>Our</i>
<b>with TurbPlus Integrator</b>	<i>Retail Price</i>	<i>Price</i>
<b>Customized For the</b>		
<b>Portable Plus and HP150</b>	<b>..\$219. ....</b>	<b>\$175.</b>
	<b>PRODUCT NO. TP52NX</b>	

<b>Turbo Pascal for Vectra</b>	<b>.....\$150. ....</b>	<b>\$135.</b>
	<b>PRODUCT NO. TP55NS</b>	

To upgrade from earlier versions of Turbo Pascal, call Borland at (800) 331-0877. Then send us positive proof of purchase and order part TP15NS for \$69 to receive all our supplemental disks and manual.

Turbo Pascal is a trademark of Borland International, Inc.

## HERE'S WHAT YOU GET

Our Portable Plus version of Turbo Pascal 5.5 comes with:

1. Turbo Pascal 5.5 command line compiler on 3½" single-sided HP disks, customized to the Portable Plus. Disks also include all Turbo utilities that run on the Portable Plus.
2. Standard IBM PC Turbo 5.5 packaging, including documentation.
3. HP single-sided disk containing TurbPlus and HPCRT unit.
4. Our manual on how to run Turbo Pascal and the TurbPlus Integrator on the Portable Plus and HP1150.

## TURBO 5.5 HIGHLIGHTS

- Includes Object-Oriented Programming (OOP) language features
- Supports programs larger than 64K
- Uses logical units for separate compilation
- Includes a command line version of the compiler
- Supports extended data types (including word, long integers)
- Does smart linking
- Includes conversion program and compatibility units to help you convert Turbo 3.0 programs to 5.5

## RECOMMENDED FOR:

HP110 Portable	Portable Vectra	●
Portable Plus	HP150	●
IBM PC and compatibles		●

## THE DESKTOP LINK

An unusual part of my desktop-to-Plus link is the use of Bernoulli removable cartridge drives together with the HP-IL Connection. Both adapter cards peacefully coexist in the same desktop computer. This allows the Plus to directly access two 10Meg "hard disks". (The desktop computer runs MS-DOS 3.3 so the 30Meg hard disk is off-limits to the Plus.) The transfer speed is limited to the speed of the HP-IL but the space is available whenever the Plus is connected to the desktop. This makes backups a snap even with a 1Meg RAM drawer. Since the cartridges are removable, backups can be retained longer.

## DOS UTILITIES

ls -- is the most frequently run program on any of my DOS computers. LS is a clone of the UNIX directory display program. It has several advantages over the DOS DIR command. First, files are normally displayed in alphabetical order. This makes it much easier to find a file. The default format is a matrix of files with as many as five files on a line. Even a really full directory will usually fit on a screen. I use a different version of the program on the Plus versus the desktop machines. The version used on the Plus is smaller and has proven totally compatible with the HP screen. The other version, while

offering more options, sometimes upsets the portable screen making a reboot necessary to clear screen garbage.

fgrep -- is another UNIX-style program that searches files for text strings. (I'm not trying to imitate e.e.cummings; UNIX commands are always typed in lower case.) Like 'ls', it uses DOS for its screen output and thus has proven to be quite compatible with the Plus. With fgrep it's easy to find the correct file if you know a string of text to search for.

PCOPY -- is a very simple DOS file management utility. I started using it regularly when I found that it would warn me if I was about to copy a file over another of the same name. I run version 2.1 on the Plus while using version 3.5 on the desktops. The reasons are RAM space and screen compatibility. PCOPY should be run under PCRUN so I use a batch file. PCOPY uses the same syntax as the DOS copy command but adds some switches to control the options which include automatic update of the target, move, copy only new, only existing files, etc. PCOPY is a Shareware program by Norm Patriquin. As you might have guessed, PCOPY is the basis for my file backup program since it can recognize the DOS archive bit and can follow and copy an entire directory tree from one command. (PCOPY can be found on the Personalized Software BacTools disk - \$39.95. If you use the program the shareware fee is still required).

The other utilities: FORMIBM, OFFPLUS, and TJETA are all from Personalized Software Subscriber's disks. If I'm willing to devote valuable RAM space to these programs, it means they are proven their worth.

#### RADIO SHACK MODEL 100 PORTABLE

**110** **P+** **PV** **LS/12** There is one other item in my portable computing arsenal: The Radio Shack Model 100. Believe it or not there are times when the simple Model 100 has advantages over the Plus. One advantage is weight; the M100 weighs under 4 pounds and is significantly smaller in size. The other advantage is ease of use.

Yes, there are times when the Plus is just too much; or at least more than is needed. The time for the M100 is when you need a simple tool to enter text, like when you write the first draft of a document, take notes, or gather data. This document, for instance, is being written on the M100 so that I can move about as the mood strikes. The article was started on the back deck, continued in the hammock, with more added in other locations as inspiration provided the words.

The odd thing is that a larger document is more likely to start on the M100 rather than the Plus. Small documents such as letters and memos are done on the Plus because I tend to complete them there. Since a large document will be completed on a desktop, it matters less where the initial writing is done.

The M100 is the newest in my army of computers and is not fully integrated with the other machines. Hardware and software is available to move files easily and quickly between the M100 and a desktop once a document is ready for refinement. Initially I was doing this using Framework II telecommunications on the desktop with either a direct RS232 or a modem link. This was rather cumbersome. An HP-IL connection for the M100 would

be really nice. It would give the M100 direct access to a 9114, ThinkJet, and the desktop in my home office. For now I have settled on a program much like Duette that transfers files between the desktop and either the M100 or the companion Tandy Portable Disk Drive (about 1/3 the size of a 9114).

#### Frustrations -- And Resolutions

**110** **P+** **PV** **LS/12** *by Ralph Watson, M.D.*

Frustrations came into my life as the owner of an HP110, an HP150 and an Everex Step 20/386. These frustrations, and their resolution, caused me to write this letter in the hope that someone else might benefit from my solutions.

Having a 3.5" 720K drive in an IBM clone was essential for solving these problems. Personalized Software's READHP device driver will then allow an IBM clone to read the 9114's discs. This driver is not necessary for the HP150 if it is equipped with DOS 3.2. Once a \$200 3.5" drive is added to the IBM clone all interconnect problems become unimportant (as long as you don't mind transferring files via floppy discs).

#### SPREADSHEET SOLUTIONS

Problems using an electronic spreadsheet are the easiest to solve. With Lotus 1-2-3 built into the HP110 and available for the HP150 you have complete spreadsheet compatibility between these machines and the IBM clone. Also, there is (or was) a little known program offered by Lotus Development Corporation to upgrade owners of the HP150 Lotus 1-2-3 version 2.01 to the IBM version 2.01. This program cost only a few dollars and was clearly intended to bring HP150 converts to IBM back into the fold. This program was mentioned in the HP Communicator a few issues back with the emphasis towards Vectra users and required that either the system disc or backup disc for the HP150 version be returned. Lotus now provides a modification package to remove the copy protection from the IBM version but not from the HP150 version. *[I believe HP150 users will be able to upgrade to Lotus 2.2 or 3.0 with this same program - Hal]*

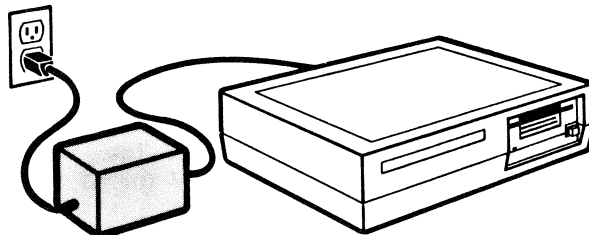
#### WORD PROCESSING COMPATIBILITY

Word processing compatibility, a more difficult problem, is also very nicely solved with the help of the 3.5" drive in the IBM clone.

Personalized software has made WordPerfect users happy by making WordPerfect available for the HP150--but what about WordStar users? I bought a version of WordStar Professional from HP that was designed to work on both the HP110 and the HP150. For a number of years I considered this to be a very workable solution. (I am originating this letter on the 110 with that software.) However, several important things have happened that make it seem less workable.

When WordStar 4 became available, Micropro offered an HP150 upgrade for the same upgrade price as the IBM upgrade. However, the HP150 upgrade is only ported for the IBM machine. With the use of the PC emulator for the HP150 and some suggestions from Personalized Software, it was possible to run WordStar, version 4 on the HP150. More important, believe it or not, it is also

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possible to very nicely run the latest version, WordStar 5.5, on the HP150. And it runs almost as well as on a PC.

WordStar 5.5 is an excellent word processing program: it has split screen editing of two files at once; it has on screen, real-time reformatting of paragraphs and the screen representation of the work is in the fonts selected for the final print; and there is complete Laserjet support and paragraph styles are available. Version 4 of WordStar can also be used with the HP150, but its thesaurus can not. In version 5.5 the thesaurus can be used as well as the spelling and definitions dictionary. WordStar 5.5 incorporates automatic (dictionary based) word hyphenation based on Xerox technology. The hyphenation system is so accurate that the user is not even given the opportunity to override the system.

In order to run WordStar, several changes are necessary. The HP150 PC emulator (available with additional documentation from Personalized Software for \$19) must be used and WordStar must be installed as IBM ROM compatible so that WordStar will not write directly to the display. The proper disks must be set up so that WordStar will not try to access the C disc for its files. (Using the DOS 3.2 ASSIGN command could even solve this problem.) The installation program used to make these changes is WSCHANGE, and it must be run under the PC emulator. The opening screens of the WSCHANGE program will not write to the 150 screen, even under the emulator. Fortunately, all it does is ask for the name of the program twice. Type this information and press return blindly. WSCHANGE will come up in all its glory and you can make whatever changes are needed. If you use the PC MODE of the emulator you must remember to use the new name of the program assigned by it. Normally this is WS.OVL

The PRCHANGE program necessary to establish the

printer definition files will not write to the HP150 screen. It is necessary to create the printer definition files on an IBM compatible machine and then transfer them to the HP150. These files appear to operate properly on the HP150 but the printer port must be designated as the PRN port rather than the standard LPT1 (at least for my setup). I am using the Kelly Computer "slot saver" board that adds a parallel port to the HP150. This is the port that is being addressed in my setup, even though that port in turn is driving my ThinkJet printer through its own HP-IL interface. The obvious point is that other setups will require different naming of the printer ports. The default, LPT1, may not work in any circumstances. The printer port assignment is part of the printer definition file.

The excellent page preview program for WordStar will not run on the HP150. WordStar reports simply that no graphics adapter is present.

WordStar 5.5 has complete support for DOS directories but unfortunately the PC emulator does not. It is necessary to start WordStar in its own directory, a task that is easily accomplished with a batch file. Once WordStar is started you can then change to another directory without difficulty using the WordStar change directory command.

Wordstar on the HP150 is not nearly as fast as on my 20 megahertz, 386 machine, and the reformatting of paragraphs on the screen as you add to your document can be disturbing. In spite of this, the keyboard buffer is more than adequate for a speed typist and keystrokes are not missed. If one turns a blind eye to the screen when inserting words in a paragraph there will be no problem.

The final result is that I have a totally compatible state-of-the-art word processing system on my HP150 which operates almost as well as on my IBM clone. Documents can be easily ported between all machines.

## DATABASE MANAGEMENT -- DBXL

Database management is another problem I had to solve. Dbase II, which I have on all three of my computers, is certainly not the answer. Ashton-Tate, by the way, will upgrade HP DbaseII to DbaseIV (or III, I believe).

**110** My answer to this problem was Wordtech System's DBXL program which is a DBASE III clone with a number of its own functions added on. It will not run on the **P+** HP110 but I didn't need the HP110 for database management. **PV** *[It works, but very slowly on the Portable Plus - Hal]* There are utilities provided to convert the file structures between dBase II and III. These utilities could, in some circumstances, allow one to use the HP110 in this scheme. If I needed to do this I would probably develop a "work around" using the HP110's built-in Lotus 1-2-3 and its dBase conversion facility.

Personal Software reviewed the DBXL program some time ago and gave it thumbs down for use on the HP150. I agreed with the review at the time. However, I was developing a major application with DBXL and Quicksilver, its compiler, and had to try using it.

DBXL has an installation program which will install it to run on the HP150. I used this to install DBXL (as, I believe, did Personalized Software when they evaluated the system). The problem with this method is that screen updates are very slow and various keys do not function properly. Actual database functions, however, are proper.

With the latest version of DBXL, Wordtech included a copy of the PC emulator and stated they had been told the HP150 could run DBXL under the emulator with a few installation hints. The trick with the emulator is to install the program to run on a generic IBM terminal (as with Wordstar) so that the program does not write directly to screen but uses INT 10. In order for INT 10 to work the DBXL configuration file, CONFIG.X1, must also contain a line to set the retrace function on. DBXL's SETUP program makes these changes for you automatically. While running the setup program (which does not require the PC emulator) tell SETUP you are installing DBXL for a terminal that is not 100% IBM compatible. On the next menu, instead of selecting the HP150 installation you select #7, which is IBM PC. This forces DBXL to use INT 10 and adds the proper line to the CONFIG.X1 file. Of course, the program must now be called under the PC emulator. *[Hopefully, some user will try this on the Portable Plus. - Hal]*

Once this is done DBXL will, for the most part, work quite well. Most of the full screen editing features, such as modifying reports, now work. Before, when installed in the HP150 mode, the screens hung up because of incorrect key mapping.

DBXL has a very complete on-line manual. However, I still cannot move through its pages without risk of crashing my machine. Fortunately, my need for the on line manual is small.

In spite of these problems, DBXL is now a very usable database manager for the HP150 when installed with the PC emulator. Its standard command line functions are absolutely correct and file management is dependable. Program files appear to operate normally, however I have not tested DBXL windowing commands.

Not to be forgotten is the DOS ASSIGN command, which makes DOS think the HP150 has a C drive --

convenient for one who types DOS commands on a clone!

Now what?? Maybe PROCOMM PLUS can be made to operate on the HP150? Well, there are excellent communications programs for the HP150 anyway.

## HP TAPE BACKUP ON 386

Just for completeness sake, I should mention one other system change. My important business files are now located on my 386. I have now transferred my HP 9142 tape drive from my HP150 to the 386. All that was required was an IB interface card and software from Hewlett Packard. By the way, if you're persistent, HP will sell you these two items separately, instead of bundled in with the interface kit they offer.

One other miscellaneous fact: the software for the tape drive will not function in its full screen mode with Sidekick Plus active (the function keys do not work). However, sidekick does not interfere with the command line function of the program as you would normally use it to make backups. The tapes, when used in this fashion, are apparently formatted differently than when formatted by the HP150. The IBM clone was able to read files on tapes created with the HP150. The Bottom Line -- MY HP150 NO LONGER LOOKS LIKE A DINOSAUR AND THE HP110 IS ALSO GETTING ITS SHARE OF USE. TWO WONDERFUL MACHINES SAVED!

# THE SAVVY USER

By Thomas Page

I must correct one error that slipped into the last issue. The biography at the end of my last column said that I work for Natural Gas Pipeline Company. When I was called and asked for the information I stated that I worked for "a" natural gas pipeline company (I didn't figure it made much difference which company and since my Company was in the throws of a merger I wasn't exactly sure who I worked for). I am Manager of Rates for Texas Eastern Transmission Corporation which is now a subsidiary of Panhandle Eastern Corporation. I am responsible for determining rates and charges for the services provided by my Company. The Natural Gas Pipeline Company [of America] is located in Chicago, not Houston.

You may find it interesting that Texas Eastern exists because some people saw opportunity in war surplus. During World War II German U-boats sitting off the coast of Florida sunk several tankers transporting petroleum and



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\*ROM backup of TermPlus includes IBM disk formatting utility, ThinkJet control pop-up, and more.

petroleum products from Texas to the East Coast. This was not tolerable since these products were essential to the war effort. In an unprecedented construction project two large diameter pipelines were built from Texas to New Jersey. These War Emergency Pipelines, better known as the Big Inch and Little Big Inch Pipelines are still being used to transport energy to the East Coast.

Like many items purchased for the war effort, the war emergency Pipelines were declared surplus shortly after the War was over. A number of companies recognized their value as a means of transporting natural gas to the large East Coast market. However, a little start up outfit from Shreveport, Louisiana, was able to snatch these pipes from under the noses of several older established companies by ignoring conventional wisdom and bidding more than Government cost for the lines.

I wish I had space to tell you more. It is a very interesting story but the Portable Paper is a computer magazine not a history book.

### TIME MANAGER SOLUTION

**110** I don't have an elegant solution to Donald Harleroad's problem of running out of space in his Time Manager appointments file (*The Portable Paper*, Vol.4, No.5, Pg.43) but I do have a few suggestion that may help with the problem.

**P+** Appointments are stored in A:\PAM.ALM, the PAM alarm file. Alarms are a PAM function not a Time Manager (TM) function. Time Manager is simply a convenient way to manage the PAM.ALM file. I think TM will reset alarms without returning to PAM. PAM.ALM is a simple ASCII file and is described in Section 3-4 through 3-10 of the Portable Plus Owners Manual (or 2-26 in the HP110 Owners Manual). There is an associated file named PAM.MSG that I see no use for but there is no need to worry about it since PAM will create it from data in PAM.ALM. To allow appointment entries without an

alarm, TM subverts the PAM.ALM file by prefixing the appointment entry with a % sign. PAM cannot recognize entries beginning with a % but TM can.

TO DO lists are strictly a TM function and are stored in A:\TM.TDO. TM.TDO is also a simple ASCII file. Name and addresses are stored in TM.NAM, another ASCII file. TM.NAM is slightly more complicated than the other Time Manager files, separating fields with the tab character.

TMSWAP.BAT, available from the Cserve HP forum and the 1988 Subscribers' Disk, provides a means for swapping TM name and address files and TO DO files. For Example, you might have one name and address file for friends and another for work-related contacts. With this batch file you can easily swap these two files. Things are more organized and you can store more names and addresses.

There is no reason that a TMSWAP procedure could not be developed to work with PAM.ALM files. Options might be time based such as NEXTYEAR.ALM or data based with options like BIRTHDAY.ALM. Since DOS commands can be issued from the TM main (calendar) menu, files can be swapped without leaving TM. If someone wishes to pursue this idea, I suggest that TM be loaded with a batch file containing code that insures the current PAM.ALM file is activated when TM is exited.

I like writing batch code and could not resist writing a batch file to swap PAM alarm files. I succeeded in writing a single batch file to manage a library of alarm files, load TM and on exit restore the current PAM.ALM file. In addition I worked up yet another variation of TMSWAP for swapping TM name files. Rather than reproduce the code for these batch files in the Portable Paper I have uploaded it along with documentation to the Cserve HP Forum. Look for TMCHG.ZIP in DL0 or DL7.

Donald could use an editor to maintain his appointments history but I think the DOS concatenation procedure he is using is better. Why not write a batch file to expedite the process. The following should work, assum-

ing appointments are saved in a file named APPOINTS.  
OLD: (see next page)

```
echo off
cls
copy appoints.old + %1
del %1
stuff ~
```

"Stuff" in the last line is a specific utility program. The startup code for any program could occupy this line. This batch file (named SAV.BAT) is designed to run from within TM but it can be run from the DOS command line. Enter TM and archive the appointment file. Then return to the Calendar menu and type **SAV filename.ext**. FILENAME.EXT is the file that the appointment list was archived to. There are a number of enhancements that could be added to SAV.BAT but I chose to keep it simple for this article.

#### USING TJCTRL WITH MEMOMAKER

I was surprised at the answer to the question in last issue about using TJCTRL with MemoMaker. I will grant that the solution will work, but it is more difficult than necessary. *[Please see The Portable Paper, Vol.4, No.5, Pg.3. TJCTRL is a memory resident program that lets Portable Plus users control their ThinkJet from within their word processor, spreadsheet, or other applications. TJCTRL will be on the 1990 Subscribers Disk and the Editor II ROM Backup chip.]*

Since PAM automatically sets a path, there is no reason to make the disk and directory containing the program current. This makes using MemoMaker more difficult since it is now necessary to prefix filename with drive and path designations. The following two-line batch file is all that is necessary:

```
pptj
memomakr
```

There is one catch to this batch file and the batch file shown in the last issue. PAM will not tolerate terminate and stay resident (TSR) programs like TJCTRL. When the program is exited and control returned to PAM, the computer will reboot to get the TJCTRL out of memory. This occurs so fast you may not notice that it happened. It's a real pain if your normal working directory is not A:\. The current directory will be lost every time a program is exited. A solution to the problem is a series of utility programs found in the August, 87 edition of PC Magazine. These programs, named INSTALL.COM and REMOVE.COM, install and remove TSR's. You can download them from PCMagNET on CompuServe. To keep PC Magazine's REMOVE from clashing with the HP REMOVE utility rename the PC Magazine program REMTSR.COM and write the following batch file:

```
echo off
cls
install
pptj
pptj
memomakr
remove pptj
```

If you want to save a bit of disk space write one batch file to load all you applications. The one I wrote, RUNPROG.BAT, looks like this:

```
echo off
cls
install pptj
pptj
%1
remove pptj
```

To execute Memomaker, type **Runprog MEMOMAKR**. To execute 123, type **Runprog 123**.

The version of REMOVE.COM that you will download from PCMagNET pauses for confirmation before removing installed programs. I use a version of REMOVE that has been hacked to eliminate this pause. The PC Tutor published in a later issue gave instructions on how to make this modification. It is quite simple if you type the following commands:

```
Debug REMOVE.COM
e 1fc eb 13
w
q
```

Be sure to make a backup copy before trying this trick. Typing errors are easy to make.

#### I Don't Always Agree ...

**110** I found this headline in the September issue of Online Today, "IBM Writing Interface may Replace Typing". The **P+** article describes a computer interface that works much **PV** like a paper and pencil. Don't get me wrong, I have no **US** objection to developing such an interface. A computer **12** interface that can recognize my hand writing would be a significant accomplishment. But the article goes wrong by stating, "the product would allow a computer to be controlled more naturally and conveniently than is possible with a keyboard or mouse."

I will grant that writing is currently a more universal skill than typing but I am not at all ready to admit that it is easier or more natural than typing. Certainly writing is more portable than typing since it only requires a pencil or pen but if it's so easy, why do those of us who know how to type prefer typing to writing.

The article quotes IBM spokesman Gerald Present, "Writing or drawing on the Paperlike Interface performs the same functions as pressing keys on a keyboard or moving a mouse, but it is more intuitive to use, requiring less effort and fewer actions."

It sounds like a very useful keyboard accessory and may be the ideal interface for some applications. However, it may be a step backward. It is a fact, performing certain activities in our modern world require developing complimentary skills. The fact that many of us don't type is not an indication that typing is difficult. The simple fact is, when we were kids and learning many of life's basic skills, computers were nonexistent and typewriters were expensive complicated devices grade schoolers were not allowed to use.

Where the article goes most wrong is in the headline. Perhaps we should forgive headline writers since the purpose of a headline is to catch attention in a very limited space. It may be too much to ask a headline to tell a complete and accurate story.

We have all heard someone make a statement much like this, "Someday computers will be able to recognize voice and we won't have to type." Sure, just imagine 20 people in a room talking to their computers. Of course 20 people clickety-clacking on keyboards is pretty annoying. Perhaps there is a place for the Paperlike Interface and the archaic skill of shorthand. You will see a noiseless keyboard before shorthand becomes a universal skill.

There is no ultimate computer interface. A voice interface may be best for some jobs. The Paperlike Interface will be great for other jobs and I expect that some variation of a key will probably be used for a long time.

If there is a problem with the keyboard interface it may be that there are too many of the wrong keys on the usual desktop computer keyboard. I have never seen a computer that could successfully emulate a 10-key calculator. Yes, there are a number of calculator programs for computers including some that display a nifty calculator keyboard on the screen. However, none of them really work because even on desktop keyboards there simply aren't enough of the right keys around the 10-key pad. Just about every computer user I know has an HP pocket calculator or a 10-key on his desk for doing quick calculations.

Why are we so enthralled with putting function keys on computers. Function keys work good in some cases but are difficult to reach. Two keystrokes in the primary typing area of the key board are more accurate and faster than a long reach to a function key. And that is without prefixing the function key with a **shift**, **alt**, or **ctrl**. Function keys are a throw back to mainframe computer terminals and slow data communications. The speed at which a microcomputer can display a menu makes function keys an anachronism.

The best way to improve computer keyboards is for programmers to quit writing for desktop computers and start writing for portable computers. A program that will work efficiently on the limited keyboard of a portable will certainly work on a desktop. The result may be that in the future we will see more effective keyboards. The philosophy of designing a portable computer to run desktop software is simply wrong.

## LEARNING TO PROGRAM

**110** I cannot understand why people refuse to learn to program their computers. It's amazing that some people will write complex macros for 123 but will not even try writing simple batch files or think about making terminal sessions easier by writing a command file for their terminal program.

One of the reasons this occurs is that action within a 123 spreadsheet is easily conceptualized, whereas DOS commands and command languages associated with most terminal programs are much more abstract and difficult to comprehend, especially for someone who does not normally think in computer terms. Many computer users are not proficient typists and are scared of the keyboard

and of the tools used for writing programs. Of course some of the directions that are given for writing batch files are enough to frighten anyone who listens. There is no way the average five thumbed-novice computer user can type a three-line batch file using the COPY CON command. He has too many other things to worry about. EDLIN may be even more difficult for the novice.

Don't knock these procedures. They have their place. When in DOS, COPY CON is quickest way to write short text files. It takes some confidence to use this command but knowing that mistakes can be loaded into an editor and corrected helps. I have had no reason to become proficient with EDLIN, but I can run it remotely, and occasionally use it to edit files on the office computer while I am at home.

The first step in learning to program is finding a suitable editor. For the Portables there is MemoMaker, The Editor, VDE, or the Turbo Pascal 3.1 editor. If you are not comfortable with one of these programs you can use 123 or your word processor. I can not say how MS-Word or WordPerfect work as program editors, but I know 123 works quite well. The PRINT TO FILE command is the trick for creating program code in 123. There are similar options in most word processing programs. I don't claim these are the best tools for writing program code, but they work and they eliminate the need to learn another program.

A mistake people often make is assuming programs must be complicated. Even 123 macro-coders make this mistake and fail to write quick little macros that could save hundreds of keystrokes. This column demonstrates that batch programs (files) do not have to be complicated. Get out your reference manual and try writing a bit of simple code. Hopefully the manual will give some examples you can try. Unfortunately many manuals are not especially understandable.

Try reading and interpreting more advanced code. Examining a pro's code is absolutely the best way to learn how to use the tools available to accomplish your objective. It is very likely you will find solutions you can incorporate into your project. I have learned a lot about programming by examining Ed Keefe's Turbo Pascal code.

Fortunately there are many people willing to share their knowledge. Books and magazines are an excellent source of ideas. There is no limit to the material available from CompuServe. The Portable Pascal disk contains some useful procedures from Ed Keefe and Cliff Looyenga (Turbo 3 stuff that works better on the HP110 than on the Plus). [*Turbo Pascal 3.0 Optimizer is available through Personalized Software for \$119.*]

Check Personalized Software's Subscribers Disks and your software distribution disks. The Reflection distribution disk contains a large file chock full of sample command file routines. Turbo Pascal is distributed with several sample programs and Personalized Software's Pascal Programs for the Portable Plus includes many great Portable routines.

If you have a specific goal and can't find the code you need, look for a solution written in another language. Fortunately learning to read code in one language helps reading another language. Some years ago in my first attempt at writing Turbo Pascal I wrote, RNGNAME.COM to read a spreadsheet file and display RANGNAMES and

their locations for 123, Release 1A. The only reason I attempted this complicated programming effort was that I had found a basic program on the Cserve Lotus Forum that performed this task.

I take a very broad view toward computer programming. In this essay I have rambled through a number of programming techniques: macros, command files, batch files, Turbo Pascal. Yet there is one somewhat left-handed form of programming that most computer users should be aware of and use -- configuration files.

It is much easier to load an application with a configuration customized for the job rather than stepping through a configuration menu. Some 123 users find having a library of 123.CNF files a real convenience. Replacing the 123.CNF file with one stored in a library is an easy batch file application. Fortunately most programs allow specifying the configuration file on the command line when the program is executed.

Programming a computer does not take the skill of a brain surgeon. If you make a mistake nothing serious will happen. The absolutely worst that can happen is crashing the computer and trashing the RAM disk. Since we backup often this is not a problem. If you are doing any serious programming with a real programming language such as Turbo Pascal, Basic, C, etc. you should be especially careful about backing up. If you specify an incorrect memory location there is no telling what might be wiped out.

Don't confuse me with a programmer -- I am a user. However, I don't consider that fact an excuse for not learning how to use my computer. There are many tricks available to the average user and there is no reason not to use advanced techniques to control our machines. If you can program a VCR you can program a computer.

#### PAM MENU OVERFLOWS

**110** Although most of my Portable's software is on the ROM drive, B, I use customized PAM menu entries on A to load **P+** various applications. In addition to being able to specify exactly how I want the application configured, these custom PAM menu entries allow me to present the application at preferred screen locations. Since PAM is limited to 40 applications there very little space left for PAM to display applications stored on a floppy disk. This is not generally a problem as I seldom run applications from C. Unfortunately, for this very reason, I find menu entries for C drive applications more important than those I run every day. I solved this problem by writing batch file menus for my floppy disks. On each of these floppy disks I have a PAM.MNU file with a single entry:

#### C:Programs C.BAT

C.BAT below is a sample of a typical menu batch file. It makes use of the INPUT.COM utility available on the 1988 Subscribers Disk and from a number of other sources including the Cserve HP Forum. You will note escape commands in this batch file. If the Norton Utility is loaded with another batch file it is not necessary to use escape sequences in C.BAT.

On the first line **ESC\*dR** turns off the cursor to create a slightly more attractive display. **ESC[2J** is equivalent to the DOS **CLS** command and is slightly faster since it is not

Also works on the  
HP150.

## FilePlus: The Portable Plus file manager. Fast, sophisticated, easy-to-use!

- List files in two directories simultaneously
- Copy, move, and delete multiple files
- Sort directories
- Create protected ("Read-Only") files
- Back up only those files that have changed since last backup
- And much more!

When Hewlett-Packard introduced the P.A.M. file manager in 1983, the program was ahead of its time. With P.A.M., users could copy, rename, and delete files by pressing function keys instead of having to enter DOS commands.

Today, however, users are more sophisticated—and so are the file management programs that have come on the IBM PC market. These programs go way beyond P.A.M. in their abilities and in the convenience they offer the user.

Most of these file managers won't run on the Portable Plus, but we've developed one that does. It's called **FilePlus**, and here are its benefits:

#### 1. Display two directories

This is a feature that even some of the most popular IBM compatible file management programs don't have! FilePlus lets you list two directories (from the same or different disks) simultaneously on screen. This makes it especially easy to move files back and forth between the two directories.

#### 2. "Point and Shoot"

You don't have to wade through P.A.M.'s function key menus to perform a simple operation like copying a file.

Instead, you simply display the contents of the source and destination directories side-by-side, tag the file you want to copy, then use a simple Lotus-like menu to enter the "Copy" command with a single keystroke.

You use the same "Point and Shoot" method to run programs and to move, delete, view, etc. any files you wish.

#### 3. Tag multiple files

You can tag any number of files in a directory, then perform the same action (copy, rename, delete, protect, etc.) on all of them in a single step.

#### 4. Sort files

FilePlus can list the files in a directory by name, extension, size, or date. (An alphabetical listing by name helps you locate files in a hurry. A listing by size is useful in determining which files to erase in order to free up any needed amount of disk space.)

#### 5. Single-step "Move" command

To move a file from one directory to another, you no longer have to copy the file first then delete the original. FilePlus lets you do it with a single "Move" command—and you enter the command with one keystroke!

#### 6. Protect your files

You can protect your files (make them "Read-Only") to guard against accidental deletion. FilePlus even lets you do this with entire directories! You can unprotect the files whenever you wish.

#### 7. Show attributes (Read-Only, Hidden, Archive)

FilePlus displays the attributes of all the files in a directory so you can view them at a glance or change them in a flash.

#### 8. Backup only if changed

FilePlus allows you back up just those files that have been changed since the last backup.

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Portable Plus	HP150	•
IBM PC and compatibles		•

# 2400 baud portable modem for your HP Portable



The 4"×2"×1" WorldPort 2400 costs less than HP's internal modems, is faster, and can be used with more than one computer.

## Weighs only 6½ ounces!

If you do data communications with an HP Portable or Portable Plus, you've probably found the internal 300- or 1200-baud modem to be too slow. Until now, the only solution was to buy a bulky external modem and lug it around wherever you go.

A better solution is the Worldport 2400. It measures a trim 4"×2"×1", it's rugged, it weighs only 6½ ounces including the battery, and it sends and receives at 300, 1200, and 2400 baud.

### A MYRIAD OF FEATURES

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Included with the WorldPort 2400 at no charge is the acclaimed communications and remote control software package, Carbon Copy PLUS (retail value: \$195). The program also comes free with the WorldPort1200—WorldPort2400 Upgrade Kit. (Carbon Copy PLUS will not run on the HP110 or Portable Plus, but both WorldPort modems will run with HP's communications software, namely the Terminal program for the HP110, and TERM and Reflection for the Portable Plus.)

For example, the WorldPort 2400 has auto-dial, auto-answer, and both pulse and tone operation. It comes with a standard modular phone plug for connecting with the telephone line. It offers non-volatile storage of up to 20 commands. And it is fully compatible with the industry-standard Hayes AT Command Set, and with the HP110's Terminal software and the Portable Plus's TERM and Reflection software.

Since a modular plug is not always available, the WorldPort 2400 also has a built-in interface for an acoustic coupler. (The coupler, an optional extra, runs at 300 and 1200 baud.) The unit is compatible with both the internationally accepted CCITT communications standards and the Bell communications standards recognized in the U.S..

The WorldPort 2400 uses a standard 9-volt transistor radio battery (it's included with the unit). A fresh battery will keep the WorldPort humming for 8-10 hours. You can extend battery life by operating the unit from a wall outlet whenever possible, using the optional AC adapter. The WorldPort 2400 draws no power from your Portable's battery.

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The WorldPort 2400 offers portability, reliability, well-designed features, and ease of use. Order yours, risk-free, today.

	Retail Price	Subscriber Price
WorldPort 2400 modem (with Carbon Copy PLUS software)	\$359.00	\$319.00
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necessary to read another line from a the batch file. After each program is executed the screen is cleared and the cursor turned off. The complicated escape sequences associated with the Norton Utilities (NU) select Alternate Console Mode and Alternate Character Set before NU is executed. On exiting from NU the escape sequences select HP Console and HP Font, then turn off the cursor and clear the screen. The escape sequences on the last line select box cursor and turn the cursor on.

The section of the batch file responsible for installing Lotus Print Graph contains STUFF.COM, which is used to answer INSTALLP's annoying questions and make operation completely automatic.

Grandma is slow. C.BAT is even slower but relatively speaking the Plus is about as old as Grandma. [In C.BAT below, the Escape character is symbolized by the characters ^ [ (ASCII 27). To enter the Escape character from The Editor, press CTRL and [ at the same time.]

```
echo off^ [*dR^ [[2]
echo . # Program echo
echo . 1 PrintGraph
echo . 2 Install PrintGraph on A:
echo . 3 Norton Utility
echo . Esc Exit
echo .
echo . Type number to execute program
input "123"
if errorlevel 255 goto END
if errorlevel 3 goto NORTON
if errorlevel 2 goto INSPGRAP
```

```
if errorlevel 1 goto pgraph
:PGGRAPH
echo ^ [[2]. Loading Lotus PrintGraph
pgraph
echo ^ [*dR^ [[2]
goto END
:INSPGRAP
echo ^ [[2]. Installing PrintGraph on A:
stuff A: ~Y~
installp pgraph.ir$
goto END
:NORTON
echo ^ [[2]. Loading Norton Utility
echo ^ [&k1\^ [[11m
nu /d1
echo ^ [&k0\^ [[10m^ [*dR^ [[2]
goto END
a:
echo ^ [*dK^ [*dQ
```

### WEBSTER'S POP UP SPELLING CHECKER

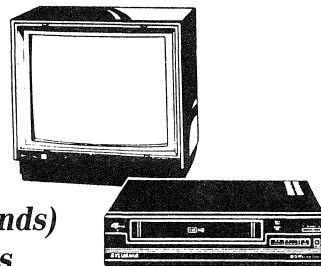
**110** The latest version of Webster's Spelling Checker is a TSR program that pops up over your favorite editor or word processor. Of course it won't run on the Portable but it works very well with Ed Gilbert's Editor on compatible. **P+** Install Webster's using the canned configuration for Bank **PV** Street Writer and you are up and running. One of my associates uses this combo and really likes it. It certainly adds a new dimension to The Editor. **LS/12**



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This 5-hour set of three VHS video tapes gives all the fundamentals of using both the HP 110 Portable and the Portable Plus. HOW TO USE THE HP PORTABLES will save you countless hours of learning on your own. It will also save time and effort in training an employee, spouse, child, or friend.

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- Understanding the value of the HP Portables' RAM and ROM technology  
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- Maximizing battery life
- Making full use of the HP Portable keyboard
- The back of the HP Portables: interfacing with other devices
- PAM, the home screen  
—Managing files and starting programs  
—Using PAM's System Config to

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## PKZIP 1.01

**110** I downloaded PKZIP 1.01, the latest version of Phil Katz's file compression and archiving utility, from the HP Forum on Cserve. [PKZIP will be included on the 1991 Subscribers Disk.] It is in D10 and the filename is PKZ101.EXE. PKZIP and PKUNZIP have gained weight but some useful functions have been added. The command structure has become even more complicated. Fortunately, like in earlier versions, you can ignore most of the options and create a configuration file to default to the options of your preference. I found this unnecessary since the defaults Phil selected are the ones I would have chosen. The most important of these options is that PKZIP defaults to maximum compression without having to issue the **-eb4** and **-ea4** commands. Many of the commands seem intimidating but the only commands really necessary to

remember are those for compressing and uncompressing a file:

## PKZIP zipname filenames PKUNZIP zipname [filenames]

You don't have to remember any of the funny little command line options to use these programs. It is not even necessary to specify filenames other than the zip-name with PKUNZIP. It will simply extract all files in the zip. There are a few command line options worth remembering:

- v** -- view the contents of the zip;
- m** -- move files to zip and delete;
- f** -- freshen;
- u** -- update.



Quickly scan the command options in the documentation, note those that look useful and forget the rest. After using the program for awhile, take another look at the options. There may be a solution to your problem.

#### PKZFIND 1.00

PKZFIND is another useful program from Phil Katz. PKFIND searches all directories of a disk for a specified file. In addition, PKFIND searches any ZIP file it may find. Simple command line parameters can instruct PKFIND to only search ZIP files, or to ignore all ZIP files. And there are even more useful features in PKZFIND. Look for PKZF10.EXE on the HP Forum (DL0) or send \$25 to:

PKWARE, Inc.

7545 N. Port Washington Rd.

Glendale, WI 53217

You have, of course, paid for your copy of PKZIP? Shareware is one of the biggest bargains computer users have and the people who write these programs should get paid for their work. PKZIP, PKUNZIP, and PKZFIND would make a great combination to put on a ROM. Add a compliment of other utilities to fill out the ROM and I will put it into my Plus.

#### 123 TRICK

Isn't it nifty how Memomaker, The Editor, Reflection, and most programs load with the current directory as the active directory. 123, on the other hand, always defaults to the directory specified by the /WGDD command and stored in 123.CNF. 123 version 2.01 can be modified to fix this. Just use the /WGDD command and delete the start-up subdirectory.

**110** This trick will work with compatible as well as the Plus. If you try this with a compatible add the subdirectory containing 123 files to the PATH. If you use a batch file to load 123 do not change directories in the batch file. Release 2 does not need to load from the program directory.

There is one flaw in this trick. If the 123.CNF file is updated for any other reason, 123 will insist on making the current directory the start-up directory -- unless you remember to reset the directory option. This is another example of a programmer getting in the way instead of being helpful.

Implementing this trick on a compatible is like moving from the basement to the penthouse when you issue the /System command. You will be in the subdirectory with your data files; not over in the program directory with all of 123's steam pipes, plumbing, and other assorted machinery.

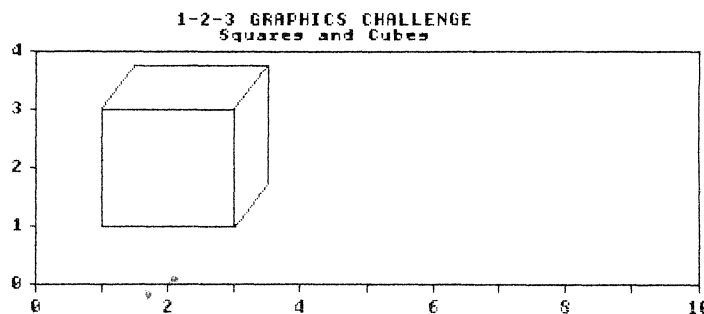
#### 123 CHALLENGE

Since one of the topics in this column has been programming, I am going to leave you with a 123 macro-programming challenge. Write a 123 macro to load MemoMaker, Reflection, and other applications. Ideally this should be a macro menu. When you exit the application loaded by this macro, the 123 spreadsheet should be active.

[HINT -- The solution to this problem is similar to that of the puzzle: using 4 straight, adjoining lines, connect 9 dots (3 rows of 3 dots) arranged in a square. You must

get outside of the square.]

Also, playing with 123 graphics I discovered a way to draw a rectangular box (below). I don't know if there is any value to this procedure but it produces an interesting display. Can you draw a box.



I will give you the solution to both of these problems next issue.

*[Tom works for a natural gas pipeline company in Houston, Texas and was one of the first to use PC's in the natural gas industry. His excellent contributions to the Portable Paper have proved beyond a shadow of a doubt that he is truly "The Savvy User."]*

## Through the Looking Glass

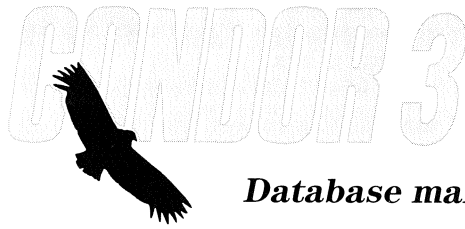
By Ed Keefe

### Four Years And Still Looking

This is the twenty fourth *Through the Looking Glass* column. That means four years have passed since I wrote the first column for *The Portable Paper*.

Four years is a long time in the computing business. In four years we have experienced the life-cycles of four HP laptops. In four years we have seen the Intel Corporation upgrade its microprocessor from the simple 8086 chip to the 80486 chip. Four years ago, if we had a microcomputer with 256K bytes of memory and that was more than enough to satisfy our needs. Today most desktop microcomputers have four times that much memory and many users will not be satisfied until they boost the standard from one to four megabytes.

**PV** PV users: Please subtract \$10 from subscriber price (since we don't have to send you additional customized disks or extra documentation). Be sure to indicate "PORTABLE VECTRA" on your order.



## and **CONDOR, JR.**

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Unlike other database systems, you simply tell Condor **what** to do, not how to do it—and you tell it using simple, English-like statements such as LIST CUSTOMER BY NUMBER NAME STATE

AND COMPUTE TOT SALES.TOT.DATE.

As a result, it takes only one fifth the time to compute, display, sort, search, or report on your data using Condor as compared with other database systems such as dBASE III. Most users find they can create and begin to use their first database within minutes after opening the package.

Condor 3 (but not Condor, Jr.) is a fully **relational** DBMS. That means you can use Condor 3 to compare, select, and combine data from two or more files. Condor 3 also lets you create your own custom report formats. (Condor, Jr. includes a LIST command for limited report writing.)

You can transfer data back and forth from Condor 3 to Lotus 1-2-3 print files

### WHAT THE EXPERTS SAY:

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"... for a straight database, I'll take Condor."

—Jerry Pournelle, *InfoWorld*

and other files not created by Condor.

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Portable Plus		●	●
Portable Vectra		●	●
HP150		●	●
IBM PC and compat.		●	●

### MEMORY REQUIREMENTS

Condor 3 requires only 128K of memory to run. The entire program, including the report writer, fits in less than 360K. Since each command is in its own file, you can save memory space by deleting any commands you don't need.

Condor, Jr. is even more memory-efficient: the main program is only 25K, and you add individual 10K programs for each function you wish to use.

In the software market we have witnessed six revisions of Turbo Pascal, three versions of Lotus 1-2-3, and several versions each of MS-Word, WordPerfect and WordStar.

Four years is a long time in higher education, my field. It's enough time to earn a college degree. If you already had a degree, then four years is almost enough time in which to gain a PhD. For me, four years is enough time to have taught more than 1,600 people how to use computers.

In four years we have watched Personalized Software grow from a two-product company (PrinterTalk and *The Portable Paper*) to a thriving business with over 75 different products and services. Indeed, four years is a long time in the computing business. A lot can happen in that amount of time.

### AN UNANSWERABLE QUESTION

With all that has happened in the past four years, I have only one question: why do these four years feel like four months?! It seems like only yesterday that I opened up my HP 110 and started tapping out the first "Through the Looking Glass" column. It feels almost too early to say this, but here it is anyway: Happy Fourth Anniversary to *The Portable Paper* and Personalized Software.

### SOME ANSWERABLE QUESTIONS

Even though I don't have an easy answer to why time seems to pass so quickly, I may have some answers to a couple of questions in the last issue of *The Portable Paper*. The answers themselves should be considered questionable. They're simply my best guesses. Please correct me if I'm wrong.

### THE TROUBLES WITH HPIL

**110** **P+** **PV** Gary Wilson wrote about his frustrations with using an HPIL interface card in a desktop computer (Vol.4, No.5, Pg.4). I could certainly empathize with him on that note. I also wondered why I had not mentioned my own frustrations with the HPIL card before this.

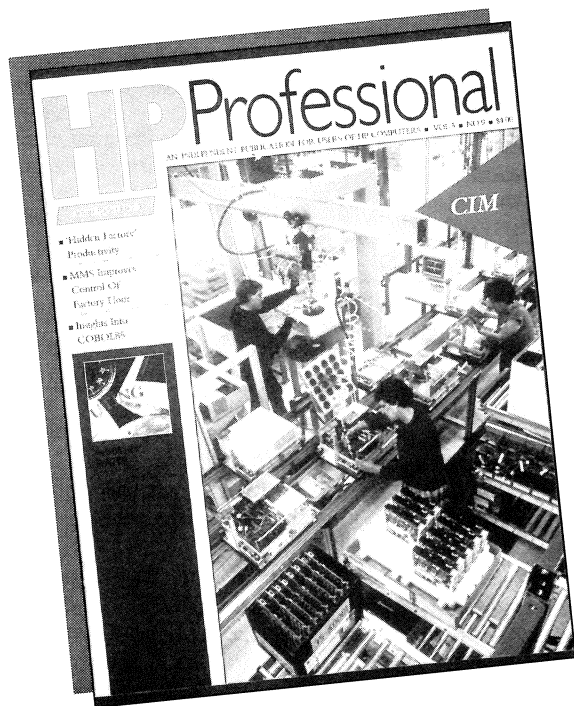
**LS/12** I started using an HPIL card in an early Model-D Leading Edge computer over three years ago. After having puzzled through the on-disk installation guide, for the HPIL card, it still took a call to Personalized Software to learn about the magic 1700 number. Until I had that number and could figure out how to set the dip switches correctly (there are two sets of eight switches and a fifty-fifty chance that you'll guess which side of the switches are ON or OFF) nothing happened on the computer.

Then, in my eagerness to try out the HPIL card, I hooked up my HP110 and started sending files to the hard disk in the Leading Edge. Bye-bye hard disk. That was how I learned about the different file structure used by MS-DOS 2.11 on the HP110 and that used by MS-DOS 3.1 on the Leading Edge.

I posted a note to myself: NEVER use the HP Portable as the talker on the HPIL loop. The only way to transfer files to or from a hard disk, formatted with MS-DOS 3.1, or greater, is to run HPLINK on the Portable and use the desktop to issue any DOS commands such as COPY or DEL. In other words, turn the HP Portable into a slave on the loop. Use its Edisk as another disk drive for the desktop machine.

I've also made it a standard practice to reboot the

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(This covers the cost of de-soldering the Harris 80C86 processor and replacing it with the faster NEC V30, increasing the clock speed from 5.33 MHz to 8 MHz, and

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(Be sure to call first to schedule an appointment.)

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Portable after each HPIL session. Then I run CHKDSK to make sure that the file allocation table has not been corrupted on the Edisk. Using these precautions, I have a better than average backup procedure for the Portable's Edisk. I just connect the Portable Plus to the desktop and issue the command (on the desktop), XCOPY D: C:\PLUS /S/E and, usually, in less than a minute, I have copied all of the files on the Plus onto the hard disk of the desktop. XCOPY is a command from MS-DOS 3.3 which will copy all files from one disk to another, creating subdirectories as they are needed. D: is the Plus's Edisk, while C:\PLUS is the subdirectory on the desktop that will hold all the files from the Plus.

My next learning experience with HPIL came when I upgraded to a fast 80286 desktop computer. I installed the HPIL card in this machine and set the address at 1700. Nothing worked. It took a call to Hewlett Packard Technical Support to learn that the HPIL card was not designed to work with fast machines. Fortunately, my new desktop computer had a utility program that would let me vary its speed in 2MHz steps. Starting at a speed of 14MHz and working down, I was able to discover that the HPIL card would operate reliably at a top speed of 8 MHz. From that day to this, the desktop has run at 8MHz.

Some fast computers do not have an easy method of switching speeds. In that case, I'd recommend a program such as VARISLOW. This program is available from most local electronic bulletin boards or users' groups. It was originally written so that users of fast machines could slow them down and use them to play their favorite games. It might just work with the HPIL card as well.

### ANOTHER ANOMALY

There is one more anomaly with the HPIL card that needs to be mentioned. I have tried using an HPIL card with an

older PC at work. This PC has a QuadRam expansion board which boosts the computer's memory to 640K bytes. The card also has its own printer output connector. The address of 1700 for the HPIL card is also used by the printer port. This means that I cannot use the HPIL loop and the printer at the same time. I have to use different CONFIG.SYS files and reboot the computer every time I want to connect the Portable to the PC. What a nuisance.

One last word of caution for those contemplating upgrading to an IBM PS/2 Model 50,55, 70, etc. The HPIL card will not work with the new Micro Channel Architecture in these computers. Don't look for any upgrade to the HPIL card from Hewlett-Packard for these MCA computers. HP does not support the Micro Channel Architecture in any of its machines. HP may also be phasing out any support for HPIL in the future. The only computer on HP's product list that still uses HPIL is the HP-41CX handheld. And once that machine is taken off the product list, HPIL will, for all practical purposes, be discontinued as well.

### THE ANSWER IS NOT AT ALL BASIC

**110** Franz Ulz, of Brunn, Austria had a question about why programs written and compiled with Turbo BASIC 2.0 **P+** would not run on the Portable Plus (Vol.4, No.5, Pg.43). He mentioned that he had written and compiled programs in Turbo Pascal 3.0 and MIX Power C and these programs ran on the Plus. So why don't all programs compiled on the Plus, run on the Plus?

The answer has to do with how a given compiler translates such commands as **print**, **writeln()** and **printf()**. For instance, Turbo Pascal 3.01, in its plain MS-DOS version, translates **writeln()** commands into calls to the ROM BIOS of the Plus. The ROM BIOS is another program that knows where and how to write to the

# HPduette

*It transfers files both ways between your Portable Plus and your desktop computer without an HP-IL card!*

An HP-IL card inside your IBM PC or compatible computer lets you transfer files to and from your Portable Plus.

It's a good solution to the data transfer problem, *provided* you only use one desktop computer. But if you ever need to transfer data between your Portable Plus and someone else's desktop computer, you're stuck—or at least you were until now.

Because now there's a way to do it with software.

It's a program called HPDuette. Together with a special serial connecting cable that it comes with, HPDuette is all you need to transfer files at high speed both ways between your Portable Plus and any IBM PC compatible desktop.

RECOMMENDED FOR:	
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Portable Plus	• HP150
IBM PC and compatibles	•

HPDuette performs complete error checking during the transfer process to ensure data integrity. It handles multiple-file transfers, subdirectory transfers, and DOS "wild card" usage. It lets you use DOS commands such as type, list, rename, and erase without having to exit the program. And it transfers data *faster* than you can with an HP-IL card.

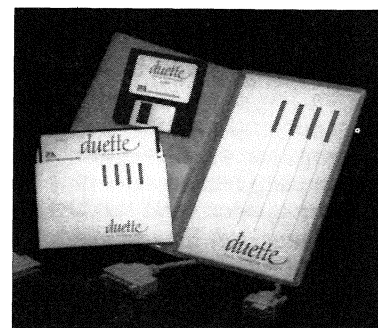
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**HPduette** comes with a serial cable and two disks; you load one disk into your Portable Plus and the other into the desktop.

HPDuette transfers data at 57,600 baud. To use HPDuette, you connect the 9-pin serial port on your Portable Plus to the serial port on your desktop computer using the serial cable that comes with the program.

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unusual screen of the Portable Plus. This ploy of using the ROM-BIOS lets the MS-DOS version of Turbo Pascal compile "well behaved," albeit somewhat slow, application programs.

### A MIXED REVIEW

**110** **P+** I was glad to read that Franz has tried MIX C. MIX Power C is an interesting language product. It runs on the Portable Plus and produces well-behaved programs that will run "out of the box" on the Plus (and maybe even on the HP110.)

I recently bought a copy of MIX Power C to evaluate it for use in my C class. The price of \$19.95 should be affordable by most students. I was able to determine that MIX Power C was minimally useful. For \$19.95 you get a compiler and the standard set of C header files. The compiler takes over 400K bytes of disk space plus another 256K of memory to run. It seems to be on a par with Turbo C, 1.0 and Microsoft C, 4.0, both of which are out of date by at least two years.

I tried compiling some sample programs using Power C on the Portable Plus. The programs all compiled and ran successfully. The screen output was fairly fast. And there's even a hint of more to come with Power C. One of the sample programs was supposed to generate a bar graph on the screen. I fully anticipated that this would drive the Portable Plus 'round the bend'. Much to my surprise, up popped the outline of a bar chart. The lettering and hatch marks were missing, but the bar chart was visible on the screen of the Plus. This looks promising and might be worth investigating further.

If you are looking for a C compiler that works and will let you try your hand at C programming, then Power C might be worth checking out. The next best alternative would be Turbo C, 2.0 which costs \$150.00.

If you're interested, the company's address is MIX Software 1132 Commerce Drive, Richardson TX, 75081.

### BACK TO BASIC

**110** **P+** So, how about Turbo BASIC, 2.0? Why won't its programs run on the Plus? Most likely, the answer lies in the way that Turbo BASIC handles the PRINT command. My guess is that the BASIC compiler generates code that writes directly to the screen of the computer. This is how Turbo C, 2.0 and Turbo Pascal, 5.5 handle their comparable **printf()** and **writeln()** functions respectively.

However, Turbo Pascal and C both include a function that disables this direct video output and forces the compiler to use the computer's ROM BIOS programs to write to the screen. I looked in vain for such a function in Turbo BASIC. There does not seem to be one. The bottom line is that any program compiled with Turbo BASIC will not run on the Portable Plus. That's too bad. Other than the expensive version of BASIC sold by HP there does not appear to be any other version of this language that runs on the Portable Plus. I have an early copy of True BASIC and it too writes directly to the video screen of the IBM PC. I suspect that later versions of the True BASIC language program are specifically for the 100% IBM compatible market as well.

## THE VDE ODYSSEY CONTINUES

Eric Meyer, the author of the WordStar work-alike, Video Display Editor, called to tell me that a new version of the program has been officially released. It is version 1.40a and is currently available in the IBM Application Forum on CompuServe. The added feature for this new version lets the user record and play back keyboard macros, on the fly.

This lets you create macros much more quickly than you could using the installation program alone. These macros can be saved on disk and loaded into the VDE program when they are needed. Eric Meyer has even included a sample macro file that makes VDE have some of the look and feel of WordPerfect.

The VDE also supports proportional printing so you might want to try it with your DeskJet or LaserJet.

I was happy to hear that Bill Pinnick got an early version of VDE to work on the HP110. I suspected that it could be done, but without an HP110 on which to try it I hesitated to make any claims. Thanks, Bill. *[We'll put versions of VDE for all HP portables on the 1990 Subscriber's Disk. - Hal]*

## OOPS

I've been trying to design my first real program using OOP (Object Oriented Pascal), with Turbo Pascal 5.5. The program, "Yet Another File Management Program", is a directory file lister which will let you copy and delete files with the push of a button. The "object" in this program is a list of the files. The program would include procedures to display the list, tag files, copy, delete and rename them. It all sounds simple and probably is simple. That doesn't mean that it's easy. I'm beginning to realize that I have programmed myself to write code in a certain way. The OOP style of programming requires that I unlearn what I have always considered good programming practices and learn a new way of writing code.

Whenever I get really frustrated with OOP, I think of Edsger Dijkstra's comment about this different style of programming. (Edsger Dijkstra is the person who first used the term "spaghetti code". He has also won every programming award in the computer business.)

His comment about OOP was that "object oriented programs are offered as alternatives to correct ones. OOP is an exceptionally bad idea that could only have originated in California." Somehow, that note of sarcasm makes it easier to tackle OOP again. At least I can stop telling myself that I HAVE to learn another style of programming.

Not everyone in the programming business is sold on the merits of OOP.

## FOUR YEARS AND HOLDING

Even though learning something new is frustrating, I'll probably continue to do that for at least another four years. These past four years have certainly been a valuable learning experience for me although, at times, somewhat frustrating. Writing this column has forced me to learn more than I ever thought I possibly could. In many ways I feel that I've gained the equivalent of a college degree in computer education.

Along the way I've met some great people. Most of these people, like Paul Grimmer, Tom Page, and David Hughes I've met on the phone and on CompuServe. A few, like Hal Goldstein and Gary Goodman, I've met in person. And, of course, spending a summer working with the staff of Personalized Software was a learning experience that I'll never forget.

Most importantly, I've had the chance to participate in the first four years of Personalized Software's growth. I've watched Hal Goldstein's idea of service to HP Portable users become a reality, both in the pages of the Portable Paper and in the minds of more than twenty people who, now, make up Personalized Software.

I feel privileged to have played a small part in that growth. But, after four years, it's time for me to graduate from this learning experience to something different.

Over the past year my teaching load has risen to more than twenty five contact hours a week. I am now in charge of all the introductory computing courses at the college as well as involved with a drastic restructuring of the MIS department. Things are heating up.

Thus it is with a sense of regret that I must forego these bimonthly trips *Through The Looking Glass* with you. You may expect to hear from me intermittently. I'll undoubtedly fill a page in *The Portable Paper* with joyous exclamations when I finish my first OOP program. You'll also be the first to know if I discover any new and exciting programs that work on the Portable Plus. So this isn't really good-bye. It's just "Until next time, Happy Porting."

*[Ed Keefe is an author, programmer, and computer science instructor. He is the president of the FastAid Company, 314 SW Logan, Ankeny, IA 50021. Ed's CompuServe ID is 73277,1064.]*

*(Letters continued from page 5)*

2. The ability to edit addresses directly after a successful search, without having to go back to the calendar screen.

3. The ability to extend the fields of the address list in Time Manager (accepting longer names, cities etc.)

4. The address screen needs to be flexi-

ble enough for European use. Our ZIP codes are prefixes rather than suffixes and the country codes precede the ZIP.

5. The address file on your 1988 Subscribers' Disk is certainly a good start to improve efficiency of Time Manager.

6. Provide different left margin settings for my address, consignee's address and text. As it is, all text (i.e., including both addresses) will be printed with the same left margin, unless you only use address

printing for window envelopes. The folder mark still is printed at the same margin.

7. The folder mark should be only - (now it is ---). Even better, it should be possible to avoid printing the folder mark.

*[We managed to lose the tail end of this letter and cannot attribute it's source. - Hal]*



## Likes MS-Word over WordPerfect

Recently I acquired a copy of WordPerfect 5.0, and PlusPerfect from Personalized Software. I am very impressed with Cliff Looyenga's PlusPerfect (WPRUN.COM) and the seamless porting to the PLUS that it enables. It is amazing how quickly WP 5.0 loads and runs in the PLUS ... and the blazing response of the thesaurus and speller running from my RAM disk.

I must confess that WP 5.0 has been a letdown to this veteran MS-Word user. MS-Word is also a difficult application to master, but once the lights go on it offers a logical grouping of functions and executes these elegantly. The WYSIWYG feature of MS-Word makes it more appealing to me.

Unfortunately MS-Word on ROM (version 1.1) is now aging ... especially for me as I seek to have document capability with visuals, integrated speller, etc.

Mastering another word processing application is an inefficient use of my time. Size is a more important dilemma. WP 5.0 and other new applications are bloated compared to the PLUS's current capacity. I no longer have enough open ROM or RAM disc capacity and need to offload much of my other stuff to run WP 5.0 from RAM. So far, the batch file I wrote to manage this process is not a satisfactory solution. I even tried to compress the WP 5.0 files, as I do with some of my other applications. I was surprised how compacted its files already are; this strategy didn't help either.

Considering the space taken by my "must" files and applications (those I need with me at all times) I don't see how I can incorporate WP 5.0. I seldom use applications that are not loaded in my PLUS. Expanded ROM chips and/or

RAM disks would help to alleviate this bottleneck.

It is interesting to note the evolution in one's thinking. I have a "user friendly" PC in the PLUS and a cumulative investment of time molding it into a genuinely productivity partner. But I also look over the horizon for innovation and genuine progress that does not compromise the benefits of my current solutions. While newer "laptop" offerings brag about dazzling hardware capacity (386-25, cache, 16meg memory, 100meg HD, etc), they don't address the user's best advantage, except perhaps when plugged into the wall in a conventional office setting.

By contrast, Hal, this letter was written via MS-word 1.1 from aboard my boat somewhere out on the lake, in between learning to use TurboPascal 3.0, and writing some business correspondence.

Speaking of MS-Word, PC-Magazine has given the newly released version 5.0 a glowing review. Contrary to pre-release rumors, it ports to the original IBM-PC as well as PS/2 platforms. Apparently there are two different application files or file-sets. It only uses 320K of main memory and 650K of disk space for minimum configuration. Perhaps someone among our readership has a technical insight about how to port MS-Word 5.0 to the PLUS.

The 256K ROM space of MS-Word version 1.1 (two 128K chips), might now grow to not more than a five-chip set (assuming maximum 128K EPROM capacity). Word 5.0 is reputed to do everything that made WP 5.0 newsworthy, yet Word 5.0 is claimed to do it better and with fewer keystrokes.

### OTHER ITEMS...

PlusPerfect and DAC Easy 3.0 - I have

tried to load DAC Easy 3.0 in alternate mode via WPRUN without success; it locks up the keyboard. Interestingly, DAC Easy 3.0 Tutor loads and runs well (graphics, pulldown menus, overlays, the whole works) though it is a bit fragile. Is it possible that some very minor tweeking might fix this problem? (Of course version 4 has just been announced by DAC Easy. I don't know if this is real upgrade or just more bells and whistles.)

SEROFF.COM ... I have just noticed in the September issue of the Portable Paper that Ed Keefe plans to include SEROFF.COM on the Subscribers Disk. I have been trying to find some way to control the three ports on my PLUS ... from the DOS prompt (ergo, from within batch files) but don't know enough to do it. I want to have my printer and datacom ports set (via SYSTEM-CONFIG from PAM) to default settings that don't draw battery power. Then when I start an application that needs either the serial printer or the internal modem (phone jack) I do so via a batch file, which includes the instruction to turn on the required port(s) just before starting the application, and turn them off again just after exiting. If a ".COM" or ".EXE" utility were feasible for these functions, there should be one file for all "ON" and "OFF" switches, accessible as command line options. Such a utility would assure longer battery life and smoother operations.

H-POP -- Paul Grimmer's announcement was a disappointment; I have been following his reports with expectation. We surely could use the improved group of capabilities that the H-POP promised. Then again, Paul is probably just trying to flesh out his market.

**Frank Keresztes-Fischer Brighton, MI**

## HP110/HP110+ USER GROUPS

Thanks to so many of you who are willing to help organize local users groups. Users groups give an opportunity to share tips, answer questions, discuss other products, trade free software and Lotus templates, and meet other professionals. As you will notice, some areas have more than one contact person and some major areas have none. If you are in a "missing" area and would like to organize a group, contact us. If your groups combine, also tell us. We will publish this column each issue, keeping it up to date. Write: *Local Users Groups, Box 869, Fairfield, IA 52556 515-472-6330. California, Southern California* We meet 2nd Thur 7-9 at HP sales office, 5161 Lankershim Blvd, North Hollywood. Request PORTOVEC Notes Newsletter, Dave Mark, 818-794-4969. *San Diego* Steven L. Eyre 619-452-8530, Dan Butterfield, 619-470-3551. *San Mateo, Santa Clara Counties, San Francisco Bay Area*, BAYCHHU, HP Laptops & Handhelds, meet 2nd Sat of the month, Contact Jim Horn, 707-523-4890 eve, or Michael Felsenstein, 415-564-8279 eve. *Sunnyvale* Interex Int'l Hewlett Packard Users Group, 640 Almanor Ave, 408-738-4848. *Colorado, Colorado Springs* Dan Ritt, 303-528-8080. *Denver* call Bob Pressey, 303-777-0326. *Hawaii, Honolulu* Rodney Y. Fukuya if interested, 808-945-3111. *Indiana, Indianapolis*, Bob Glass, 317-638-2326. *Iowa, Mid Iowa* Ed Keefe D: 515-964-6644 E: 515-964-7064, *SouthEast Iowa*, Hal Goldstein, 515-472-6330. *Minnesota, Minneapolis/St. Paul*, John Ferman, 612-822-1372. *Maine, Yarmouth*, Every last Tues 6:30, US route One, Yarmouth, ME 04096, 846-5497. *North Carolina, Charlotte and Surrounding Area*, John Jacob, 704-334-3468. *Texas, Houston*, Thomas R. Page D: 713-759-4259 E: 713-528-7138. *Utah, Utah County*, Donna Hoover D: 378-4421, E: 375-4812. *Washington, Eastern Washington, Northern Idaho, Western Montana, and possibly Western Washington*, Bob Sandberg, 509-466-4999. *Eastern Washington*, Stephen S. Warner, D: 509-534-1588, E: 509-535-3322. *Western Washington*, Portable Plus, 150 and Vectra users meet first Thurs 7-9 pm, HP sales office, Bellevue, Pete Ross, 206-342-8875. *Portable, 40 & 50 Series: 7-9pm second Wed., U.Wash. computer center, Seattle*, Bob Moore, 206-543-7879. *Washington D.C., Greater Washington D.C. area*, 8:00 pm, Third Monday of each month, Ballston Tower #1 800 N. Quincy St., Room 519. Call to confirm and say Hi. William F. Cross, D: 202-696-4112, E: 703-845-9508. *Australia*, 8 Avoca St. S. Yarra, Victoria, Australia. Nigel S. Ball. 03-267-8344. *Central America*, I would be happy to form a users group, either Spanish or English, Apartado Postal 1587, Tegucigalpa, Honduras. *England*, Tralfalgar House, Grenville Place, Mill Hill, London, NW7 3SA England, Tim Cullis, (01) 959-4359. *HP Computer Users Association LTD*, Cunningham House, Bessborough Road, Harrow, HA1 3DX, United Kingdom, 01-423-3313. *Japan*, I would like to help start a users' group. Michael Lazarin, 26-26-502 Moto Ujina; Minami-ku, Hiroshima 734. *Netherlands*, Mr. R.M. Franquiner, Menthenbergseweg 13, NL-6816 PR, Arnhem, The Netherlands. *Spain*, Club de usuarios HP 110, Pont Reyes S.A., A la atención de D. Enrique Serra, Ronda Universidad, 15, 08007, Espana. *Sweden*, Stockholm, first Thurs each month 6:30 pm, call to confirm. Jens Pettersson, 08-713-1710. Telex 149 70 gentel S.

# WordPerfect 5.0 (and) 4.2 for

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	Product Number	Retail Price	Subscriber Price
<b>WordPerfect 5.0 for the Portable Plus (includes PlusPerfect)</b>	WD17NS	\$645	\$395
<b>PlusPerfect</b>	WD14NS	\$150	\$129
<b>WordPerfect 5.0 for the Portable Plus, with ROM Backup (includes WordPerfect, PlusPerfect, Backup ROMs)</b>	WD11NK	\$940	\$595
<b>WordPerfect ROM Backup*</b>	WD12NR	\$295	\$295
<b>WordPerfect 4.2 for the Portable Plus</b>	WD14NS	\$435	\$339
<b>WordPerfect 5.0 for the HP150</b>	WD13NS	\$495	\$395
<b>WordPerfect 4.2 single-sided for HP150</b>	WD12NS	\$435	\$339
<b>WordPerfect 4.2 double-sided for the HP150</b>	WD11NS	\$435	\$339

**WordPerfect Upgrade Kit (Upgrades Personalized Software Portable Plus or HP150 version 4.2 to 5.0)** .....  
..... Call us for pricing and other details.

\* Requires proof of purchase of WordPerfect 5.0 and PlusPerfect, and written confirmation that you will honor the WordPerfect license agreement.

## Here's What You Get

Here's what you receive when you order the Portable Plus or HP150 version of WordPerfect (published exclusively by us). Note: See box below to determine whether you should buy WordPerfect 4.2 or 5.0.

### 1. Complete WordPerfect software and Users Manual

The entire IBM PC version of WordPerfect (on 3½" disks) and the standard WordPerfect users manual.

### 2. Special utility programs

Our versions of WordPerfect 4.2 and 5.0 both come with an IBM PC emulator program that allows WordPerfect to run on your HP computer. (The Portable Plus version of this emulator is called PlusPerfect.) Our disks also include "batch" files that allow you to run WordPerfect automatically.

### 3. (Optional) ROM Backup for Portable Plus

6 ROM chips containing PlusPerfect and a significant portion of WordPerfect 5.0. (You can use 4 or 6 of these ROMs, depending on the amount of space available in your ROM drawer.)

Although you'll still need to store a 300K WordPerfect file on your disk and set main memory to 376K, this ROM Backup saves you up to 384K of RAM.

To purchase the ROM Backup, you must already own (or order) WordPerfect 5.0 and PlusPerfect on disk.

### 4. Instruction booklet

In addition to the comprehensive WordPerfect users manual, we supply our own instruction booklet. It tells you, step-by-step, how to get started, what to ignore in the users manual, and how to use WordPerfect on your HP computer.

### 5. Keyboard template

We also include a convenient 4-color keyboard template that we've designed specifically for the unique keyboard layout of your Portable Plus or HP150. The template shows you, at a glance, which keys to press to execute each of WordPerfect's functions.

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# the Portable Plus and HP150

## Frequently Asked Questions

(If you have additional questions, don't hesitate to call us!)

### Q. Are the Portable Plus and HP150 versions of WordPerfect identical to the IBM PC version?

A. WordPerfect 5.0 and 4.2 are identical on all three machines, except:

- a.) the on-line tutorial does not run on the Portable Plus or HP150. (However, the "learning" section of the users manual covers the same material as the tutorial.)
- b.) the "Preview Document" feature (which shows special fonts and graphics as they will appear on printing) functions in a limited way.
- c.) Some extra, unessential utilities that come with WordPerfect do not run on the HP150 or Portable Plus.

With both 5.0 and 4.2, if you already know how to use WordPerfect on an IBM PC, you can use the HP version right out of the box.

### Q. Can I transfer WordPerfect files back and forth between different versions of WordPerfect and between my HP computer and an IBM PC?

A. Yes to both.

WordPerfect 5.0 has a built-in transfer utility that makes sharing files between versions of 4.2 and 5.0 easy.

Moreover, WordPerfect produces identical files on an IBM PC, Portable Plus, and HP150. The only difficulty that may arise in transferring files between these machines is that HP and IBM computers use different formats. If you don't already have the ability to accomplish the transfer, you can either use our Disk Conversion Service or a variety of hardware or software solutions, depending on your system. For details, see "File Transfer Made Easy," in our product listings in this issue.

### Q. Where can I get assistance in using WordPerfect on my HP150 or Portable Plus?

A. If you have a problem related to the HP150 or Portable Plus—or if you're not sure where the problem lies—call us. If you have a question about how to use a WordPerfect feature, call WordPerfect Corporation. They are famous for the calibre of their customer support, and you can call them toll-free.

### Q. Will the HP version of WordPerfect work with my printer?

A. Our instruction booklet tells you how to run WordPerfect with all printers that work with your Portable Plus or HP150, including serial, parallel (Centronics), HP-IB, and HP-IL.

## WordPerfect in Brief

Here are some of the advanced features that have made WordPerfect the world's number-one selling word processor. (These features are common to WordPerfect 4.2 and 5.0).

### Speller

WordPerfect's built-in spell-checker is fast, thorough, and easy to use. The main dictionary contains 115,000 words, and you can add words of your own to one or more auxiliary dictionaries. The Speller also counts the number of words in a document or in any block of text.

### File merging and mail merging

With WordPerfect, it's easy to produce personalized form letters (mail merging), and to assemble reports, proposals, and contracts from pre-written components.

### Thesaurus

WordPerfect's Thesaurus helps you find the right word when you need it. Synonyms are grouped by noun, verb, and adjective, and at the touch of a key, you can look at second and third levels of alternatives.

### Columns

WordPerfect's Columns feature is ideal for writing a newsletter, glossary, script, or any text that requires columnar format. Up to 24 columns can be formatted in either newspaper style (snaking) or parallel style (side-by-side). The columns appear on the screen exactly as they will print on the page.

### Footnotes and endnotes

WordPerfect streamlines the task of creating and editing footnotes and endnotes. Just enter information at the appropriate spot, and WordPerfect takes care of numbering and formatting—including allowing just the right amount of space at the bottom of the page. If you later add or delete a note, WordPerfect will automatically renumber the others.

### Table of contents

Mark portions of your text, specify a format, and WordPerfect will automatically generate a Table of Contents and an Index for your document.

### Math

WordPerfect lets you use 4-function math for calculations across columns and for subtotals, totals, and grand totals down columns, anywhere in your document. Whenever you change a number, WordPerfect updates the totals. It's like having a mini spreadsheet at your fingertips—without leaving WordPerfect.

### Sort

You can sort lines, paragraphs—even external database records—from within WordPerfect. You can apply logical rules to the sort: It's easy, for example, to generate an alphabetized list of all customers in California who have purchased more than \$100 worth of merchandise within the last 6 months.

## WordPerfect's Newest Version

Here are the main features that have been added to WordPerfect in upgrading it from Version 4.2 to 5.0:

### Fonts and printing

WordPerfect 5.0 lets you set margins, tabs, etc. using inches, centimeters, and points. Fonts may be freely mixed and changed without affecting margins, tabs, or column definitions.

### Integrated text and graphics

WordPerfect 5.0 lets you insert graphic images from most graphics programs directly into your text. You can enlarge, reduce, move, and rotate most images to your specifications.

### Styles

You can combine text and codes to create a specific "style," or format, that you can then use over and over again (for chapter headings, subheadings, etc.).

### Document compare

WordPerfect 5.0 will compare the on-screen document to an existing document on disk. Text that has been added will be "red-lined" (marked with a vertical bar in the left margin), and text that has been deleted will be shown in "strike-out."

### Keyboard redefinition and macros

WordPerfect 5.0 lets you store any sequence of keystrokes so that those keystrokes will be executed upon the press of a single key. This "macro" feature allows easy entry of repeated text and commands. One way to use macros is to change the key assignments for WordPerfect's features. There is no limit to the number of different keyboard layouts you can thus define.

## WordPerfect 4.2 or 5.0—Which Should You Buy?

To determine which version of WordPerfect to buy—4.2 or the new 5.0—follow these steps:

### Step 1. Assess your needs.

Please see the column, "WordPerfect's Newest Version" (at top right) to learn about the features that are unique to Version 5.0. If you need these features, then 5.0 is the version for you, provided your machine can run it (see below).

### Step 2. Check your memory size.

#### Portable Plus:

To comfortably run Version 5.0, you'll need a machine with 896K of RAM (e.g., a 512K Portable Plus with a 384K RAM drawer, or a 128K Portable Plus with two 384K RAM drawers).

To comfortably run Version 4.2, you'll need a machine with 640K of RAM.

You can run either version of WordPerfect with just 512K of RAM if you're willing to do a lot of disk access from your HP9114.

Note: You might consider purchasing a 1 Megabyte RAM drawer for your Portable Plus. This would let you bring the superb WordPerfect

speller module wherever you go without having to load it in from an external disk drive. And with a megabyte of extra RAM, you'd have lots of room left over for text files.

#### HP150:

To run Version 5.0, you'll need 512K of memory and a double-sided disk drive.

To run Version 4.2, you'll need 256K of internal memory and either a double-sided or single-sided disk drive. (Note: If your HP150 uses single-sided disks, you'll also need a hard disk drive to run Version 4.2. Neither version of WordPerfect will run on a dual-floppy single-sided HP150 system.)

### Our recommendations:

In general: Choose WordPerfect 4.2 if: (a) your machine demands it, or (b) you're already using 4.2 on other machines and don't intend to upgrade, or (c) you wish to save some money and don't need the new features in WordPerfect 5.0.

On the other hand, if you want those new features and your machine can handle it, WordPerfect 5.0 is the one you should get. If you use a Portable Plus, you'll tie up the least amount of RAM if you purchase our ROM Backup version of WordPerfect 5.0.

New software breakthrough!

# 50% more file space for as little as \$89.95!

- **Easy to use—if you can save a file, you already know how to use SQUISH PLUS!**
- **A must for every HP Portable owner—ROM Backup version especially valuable if you use a Portable Plus! (Sorry, SQUISH PLUS doesn't run on the HP110.)**

It isn't often we find a program that's a must for every portable user, but Squish Plus is just such a program.

Squish Plus lets you increase your disk storage space by 50% or more for as little as \$89.95—without having to install any hardware or learn any new commands.

Squish Plus compresses files, saving them much more efficiently than DOS. For example, a word processing file of 50K might only take 30K using Squish Plus.

## COULDN'T BE EASIER!

To use Squish Plus, you simply add a new drive letter to your system (for example, e:). If you wish, the new "drive" can be password protected.

Then, whenever you save files to the new "drive," Squish Plus compresses them automatically. When you retrieve a compressed file, Squish Plus automatically expands it to its normal size.

The saving in disk space is enormous: Squish Plus compresses data files (spreadsheets, text documents, databases) by 30-70%, and compresses program files by 5-25%. On the average, you will increase the amount of data you can store on a disk by 50% or more!

Note: All your other software can use the compressed data *as is*. There are no new commands to learn. You set up directories and perform all file operations—save, retrieve, copy, rename, backup, etc.—the same way you always do. (File backup takes up fewer disks, of course, and is significantly faster.) You can even use the Norton Utilities "Undelete" program to re-

cover compressed files that have been deleted!

Initial set up is easy too. There is no need to reformat or repartition your present disk. All you do is install Squish Plus as a "device driver." (You don't even have to know what that means. The manual—one of the best we've seen—walks you through the procedure in 5 minutes.)

## ANY DRAWBACKS?

Other file compression programs impose a speed penalty. But Squish Plus is so efficient *there's virtually no loss of speed*—especially on the Portable Plus—except perhaps for a slight additional wait with some of your program files and largest data files.

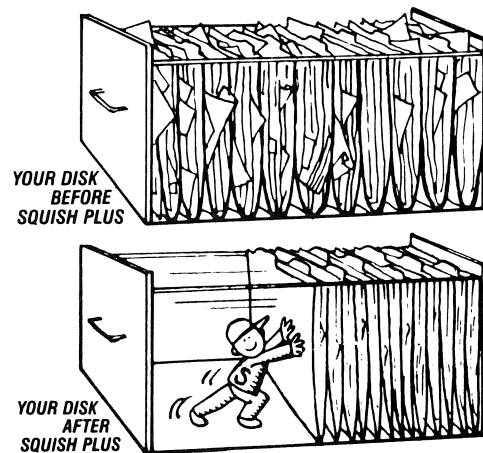
Other file compression programs also set aside a significant amount of internal memory space for file decompression. But Squish Plus uses only 36K of memory for everything.

(Portable Plus users may need to increase internal [main] memory by as much as 36K. On the Portable Vectra and LS/12 Laptop, Squish Plus simply borrows 36K from the 640K of memory that's built in.)

## WHAT ABOUT DISK SPACE FOR THE PROGRAM ITSELF?

The files on the Squish Plus disk total 139K, including several Squish Plus utilities.

Portable Plus users can get by with just 54K by eliminating all but two essential Squish Plus program files. (You can even reduce your Edisk space requirement to zero if you're willing to disable PAM and load Squish Plus from an HP9114 each



**SQUISH PLUS "compresses" your files so they take up less disk space!**

time you reboot).

A better alternative—and the one we recommend—is to purchase Squish Plus on ROM Backup (see box below).

Whatever computer you use, *there is no other way to expand your file storage space that is as easy or economical as Squish Plus*. Order your copy at no risk today.

	Retail Price	Subscriber Price
<b>Squish Plus for IBM PC compatibles</b>	<b>\$99.95</b>	<b>\$89.95</b>
PRODUCT NO. SQ12NS		
<b>Squish Plus for Portable Plus</b>	<b>\$129.00</b>	<b>\$99.95</b>
PRODUCT NO. SQ11NS		
<b>Rom Backup Package (includes Squish Plus for Portable Plus on disk and two 64K Backup ROMs)</b>	<b>\$264.00</b>	<b>\$234.95</b>
PRODUCT NO. SQ11NK		
<b>Squish ROMs (Must own Squish Plus for Portable Plus for each ROM set purchased)</b>	<b>\$135.00</b>	<b>\$135.00</b>
PRODUCT NO. SQ12NR		

## 60-DAY MONEY BACK GUARANTEE

See order form for details.

## TO ORDER

Use enclosed postage-paid order form or send check or credit card information (#, exp. date, signature) to:

**Personalized Software**

P.O. Box 869, Fairfield, IA 52556 515-472-6330

## IMPORTANT MESSAGE FOR PORTABLE PLUS USERS

### Special Portable Plus version

The authors of Squish Plus have worked with Personalized Software to create a customized version that runs on the Portable Plus. *This version is available only from us.* Be sure you specify "PORTABLE PLUS VERSION" when you order.

### Buy Squish Plus on ROM!

With disk space at a premium in the Portable Plus, the best way to buy Squish Plus is on ROM Backup.

Our exclusive ROM Backup package includes the Squish Plus disk, and two ROMs—128K total—that contain all the Squish Plus files (except for one that you'll never need).

With Squish Plus on ROM, all the useful Squish Plus utilities will always be available, and you won't have to give up any disk space at all.

The Portable Paper  
Personalized Software  
P.O. Box 869  
Fairfield, Iowa 52556

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RECOMMENDED FOR:	
HP110 Portable	
Portable Plus	●
Portable Vectra	●
HP150	●
IBM PC and compat.	●
Available on ROM Backup for the Portable Plus	●